

**2009**  
**South Dakota**  
**Motor Vehicle**  
**Traffic Crash**  
**Summary**



Prepared By  
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# I. INTRODUCTION

The Motor Vehicle Traffic Crash Summary is divided into two main sections, Historical Trends and 2009 Motor Vehicle Traffic Crash Profile. The Historical Trend section provides information on alcohol involvement in motor vehicle crashes, severity of injury by record type and sex of drivers involved in crashes. This section also provides data on restraint usage and crash trends. The 2009 Traffic Crash Profile section details the crash picture for 2009 as well as a glossary of terms.

The South Dakota Crash Data System conforms to standards established by the Model Minimum Uniform Crash Criteria (MMUCC) guidelines. The purpose of MMUCC is to provide a standardized data set for describing crashes of motor vehicles that generates the necessary information to improve highway safety.

By utilizing MMUCC, the highway safety community is making an explicit statement that comparable data from all states are crucial to our ability to identify problems and make improvements.

Information collected from crash reports is merged into a central computerized crash database. This data provides the basic information necessary for developing effective highway and traffic safety programs. The crash data is used by local, state and federal agencies to:

- Identify highway and traffic safety problem areas.
- Initiate and evaluate the effectiveness of laws and policies intended to reduce deaths, injuries, injury severity and costs.
- Assess the relationship between vehicle and highway characteristics, crash propensity, and injury severity to support either the development of countermeasures or their evaluation.

The majority of the information in this book is compiled by the Office of Accident Records within the Department of Public Safety. Current state law requires an accident report to be filed for each motor vehicle traffic accident resulting in the **death or injury of a person, or property damage to an apparent extent of one thousand dollars or more to any one person's property or two thousand dollars accumulated damage per accident.**

Law enforcement agencies provide the accident reports to the Office of Accident Records. These individual reports are available to the public for a search fee of four dollars.

## ***FOR FURTHER INFORMATION:***

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## SOUTH DAKOTA TRAFFIC STATISTICAL SUMMARY 2008-2009

|   | <u>2008</u>   | <u>2009</u>   |
|---|---------------|---------------|
| ➤ NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC CRASHES-----   | 15,907        | 16,994        |
| ➤ AMOUNT OF MOTOR VEHICLE TRAFFIC CRASH PROPERTY DAMAGE ----  | \$77 MILLION  | \$82 MILLION  |
| ➤ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH INJURIES-----   | 5,708         | 5,704         |
| ➤ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH FATALITIES -----  | 121           | 131           |
| ➤ FATALITY RATE PER 100,000,000 MILES OF TRAVEL -----   | 1.43          | 1.50          |
| ➤ PERCENT OF DRIVERS IN FATAL CRASHES WHO HAD BEEN DRINKING --  | 29.3%         | 35.6%         |
| ➤ NUMBER KILLED IN ALCOHOL-RELATED CRASHES-----   | 48            | 61            |
| ➤ NUMBER INJURED IN ALCOHOL-RELATED CRASHES -----   | 659           | 692           |
| ➤ NUMBER OF PEDESTRIANS KILLED-----   | 10            | 4             |
| ➤ NUMBER OF MOTORCYCLISTS KILLED-----   | 15            | 16            |
| ➤ NUMBER OF BICYCLISTS KILLED -----   | 0             | 0             |
| ➤ PERCENT OF LICENSED DRIVERS UNDER 25-----   | 16.5%         | 16.2%         |
| ➤ PERCENT OF CRASH-INVOLVED SPEEDING DRIVERS UNDER 25-----  | 55.9%         | 51.8%         |
| ➤ PERCENT OF CRASH-INVOLVED DRINKING DRIVERS UNDER 25-----  | 38.9%         | 35.4%         |
| ➤ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES -----<br>(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)  | 94            | 111           |
| ➤ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES WHO WERE<br>WEARING A SAFETY RESTRAINT -----<br>(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS) | 27            | 28            |
| ➤ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE<br>IN MOTOR VEHICLE CRASHES WHO WERE KILLED-----  | 3             | 1             |
| WHO WERE INJURED-----   | 7             | 14            |
| (EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)  |               |               |
| ➤ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE<br>WITH CHILD RESTRAINT NOT USED PROPERLY WHO WERE KILLED ----                                  | 1             | 0             |
| WHO WERE INJURED ---  | 2             | 5             |
| (EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)  |               |               |
| ➤ ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC CRASHES -----  | \$320 MILLION | \$358 MILLION |

Source: SD Department of Public Safety – Office of Accident Records

## II. HISTORICAL TRENDS

### Motor Vehicle Crashes

The preliminary death rates per 100 million vehicle miles traveled from 2000-2009 for South Dakota, states surrounding South Dakota and the nation are shown in TABLE 2-1. FIGURE 2-1 compares South Dakota with the national rate and two comparable rural states, North Dakota and Wyoming.

**TABLE 2-1  
FATALITY RATE COMPARISON  
2000-2009**

| <u>State</u> | <u>2000</u> | <u>2001</u> | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| South Dakota | 2.1         | 2.0         | 2.2         | 2.4         | 2.3         | 2.3         | 2.3         | 1.7         | 1.4         | <b>1.5</b>  |
| Iowa         | 1.5         | 1.5         | 1.3         | 1.4         | 1.2         | 1.4         | 1.4         | 1.4         | 1.4         | <b>1.2</b>  |
| Minnesota    | 1.2         | 1.1         | 1.2         | 1.2         | 1.0         | 1.0         | 0.9         | 0.9         | 0.8         | <b>0.8</b>  |
| Montana      | 2.4         | 2.3         | 2.6         | 2.4         | 2.0         | 2.3         | 2.3         | 2.4         | 2.1         | <b>2.1</b>  |
| Nebraska     | 1.5         | 1.4         | 1.6         | 1.5         | 1.3         | 1.4         | 1.4         | 1.3         | 1.1         | <b>1.0</b>  |
| North Dakota | 1.2         | 1.5         | 1.3         | 1.4         | 1.3         | 1.6         | 1.4         | 1.4         | 1.3         | <b>1.8</b>  |
| Wyoming      | 1.9         | 2.2         | 2.0         | 1.8         | 1.8         | 1.9         | 2.1         | 1.6         | 1.7         | <b>1.4</b>  |
| National     | 1.5         | 1.5         | 1.5         | 1.5         | 1.4         | 1.5         | 1.4         | 1.3         | 1.3         | <b>1.2</b>  |

**Note:** Death Rate is the number of traffic fatalities per 100 million vehicle miles traveled.

The 2009 rates are preliminary estimates and will be updated the following year with the final numbers.

Source: SD Department of Public Safety - Office of Accident Records

**FIGURE 2-1  
South Dakota Fatality Rate  
vs. Wyoming - North Dakota - National Rates**

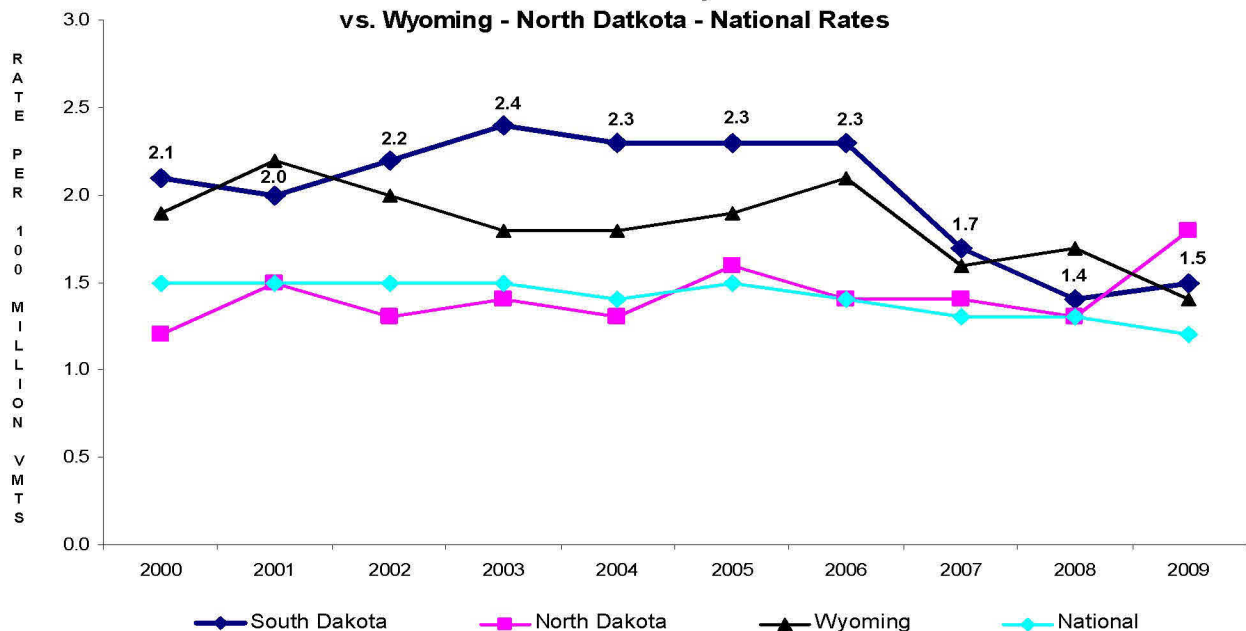




TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic crashes from 1980 through 2009. Any comparison of motor vehicle crashes must be made with caution due to the changes in the definition of a reportable crash. For example, in the late 1970's the definition of a fatality caused by a motor vehicle crash was changed from the death occurring up to one year after the crash to death occurring within 30 days after the crash. Using vehicle miles of travel, the 2009 death rate increased to 1.50, a 4.9% increase from the 2008 death rate of 1.43. The 5,704 people injured in crashes are a 0.1% decrease from the 5,708 in 2008 (see TABLE 2-2).

**TABLE 2-2**  
**SOUTH DAKOTA YEARLY COMPARISON**  
**OF MOTOR VEHICLE TRAFFIC FATALITIES, INJURIES,**  
**CRASHES, MILES TRAVELED, & REGISTERED MOTOR VEHICLES**

| Year | Deaths | Death<br>Rate <sup>1</sup> | Injuries | Total<br>Crashes | Total<br>Crashes<br>Rate <sup>4</sup> | Fatal<br>Crashes | Injury<br>Crashes | PDO <sup>2</sup><br>Crashes | Miles <sup>3</sup><br>Traveled<br>+(000,000) | Registered<br>Motor<br>Vehicles <sup>5</sup><br>+(000) |
|------|--------|----------------------------|----------|------------------|---------------------------------------|------------------|-------------------|-----------------------------|--|--|
| 1980 | 228    | 3.69                       | 7,147    | 14,845           | 240.25                                | 188              | 4,770             | 9,887                       | 6,179 <sup>3</sup>                           | 622  |
| 1981 | 177    | 2.86                       | 6,771    | 14,375           | 232.38                                | 162              | 4,614             | 9,599                       | 6,186  | 637  |
| 1982 | 148    | 2.33                       | 6,174    | 14,605           | 229.57                                | 129              | 4,192             | 10,284                      | 6,362  | 640  |
| 1983 | 175    | 2.77                       | 6,287    | 14,971           | 237.07                                | 147              | 4,175             | 10,649                      | 6,315  | 655  |
| 1984 | 143    | 2.24                       | 6,158    | 15,093           | 236.42                                | 132              | 4,297             | 10,664                      | 6,384  | 669  |
| 1985 | 130    | 2.07                       | 6,240    | 15,435           | 245.94                                | 109              | 4,229             | 11,097                      | 6,276  | 674  |
| 1986 | 134    | 2.15                       | 6,008    | 13,714           | 219.85                                | 118              | 4,105             | 9,491 <sup>2</sup>          | 6,238  | 686  |
| 1987 | 134    | 2.09                       | 6,221    | 13,083           | 203.59                                | 107              | 4,173             | 8,803                       | 6,426  | 711  |
| 1988 | 147    | 2.22                       | 6,579    | 14,821           | 224.02                                | 127              | 4,455             | 10,239                      | 6,616  | 709  |
| 1989 | 152    | 2.27                       | 6,828    | 15,005           | 223.79                                | 134              | 4,605             | 10,266                      | 6,705  | 719  |
| 1990 | 153    | 2.19                       | 7,261    | 15,073           | 215.67                                | 139              | 4,820             | 10,114                      | 6,989  | 698  |
| 1991 | 143    | 2.10                       | 7,310    | 16,009           | 235.32                                | 130              | 4,830             | 11,049                      | 6,803  | 710  |
| 1992 | 161    | 2.24                       | 7,813    | 17,170           | 238.51                                | 141              | 5,112             | 11,917                      | 7,199  | 722  |
| 1993 | 140    | 1.89                       | 8,410    | 18,664           | 251.74                                | 118              | 5,525             | 13,021                      | 7,414  | 749  |
| 1994 | 154    | 2.02                       | 8,540    | 19,408           | 254.30                                | 141              | 5,711             | 13,556                      | 7,632  | 805  |
| 1995 | 158    | 2.06                       | 8,323    | 19,362           | 252.41                                | 140              | 5,543             | 13,679                      | 7,671  | 812  |
| 1996 | 175    | 2.24                       | 8,490    | 21,653           | 277.57                                | 142              | 5,653             | 15,858                      | 7,801  | 815  |
| 1997 | 148    | 1.88                       | 8,161    | 20,899           | 264.81                                | 128              | 5,478             | 15,293                      | 7,892  | 827  |
| 1998 | 165    | 2.05                       | 7,723    | 19,735           | 245.49                                | 149              | 5,112             | 14,474                      | 8,039  | 837  |
| 1999 | 150    | 1.84                       | 7,574    | 20,019           | 245.00                                | 136              | 5,032             | 14,851                      | 8,171  | 841  |
| 2000 | 173    | 2.08                       | 7,888    | 19,475           | 234.16                                | 150              | 5,252             | 14,073 <sup>2</sup>         | 8,317  | 862  |
| 2001 | 171    | 2.04                       | 7,118    | 17,699           | 211.43                                | 154              | 4,888             | 12,657                      | 8,371  | 872  |
| 2002 | 180    | 2.12                       | 6,997    | 17,335           | 204.47                                | 159              | 4,702             | 12,474                      | 8,478  | 890  |
| 2003 | 203    | 2.43                       | 6,944    | 18,018           | 215.99                                | 173              | 4,781             | 13,064                      | 8,342  | 909  |
| 2004 | 197    | 2.38                       | 6,535    | 17,163           | 207.33                                | 166              | 4,581             | 12,416                      | 8,278  | 927  |
| 2005 | 186    | 2.29                       | 6,212    | 16,254           | 200.07                                | 158              | 4,346             | 11,750                      | 8,124  | 919  |
| 2006 | 191    | 2.25                       | 6,015    | 15,730           | 185.04                                | 172              | 4,196             | 11,362                      | 8,501  | 972  |
| 2007 | 146    | 1.72                       | 5,782    | 16,220           | 191.25                                | 130              | 4,071             | 12,019                      | 8,481  | 971  |
| 2008 | 121    | 1.43                       | 5,708    | 15,907           | 187.80                                | 109              | 4,107             | 11,691                      | 8,470  | 924 <sup>5</sup>                                       |
| 2009 | 131    | 1.50                       | 5,704    | 16,994           | 194.44                                | 112              | 4,101             | 12,781                      | 8,740  | 952  |

**FOOTNOTES**

<sup>1</sup> Number of deaths per 100 million vehicle miles traveled.

<sup>2</sup> July 1, 1978 the PDO threshold was increased to \$400 accumulated property damage.

July 1, 1986 the PDO threshold definition changed to \$500 damage to any one person's property or \$1000 accumulated property damage per crash.

July 1, 2000 the PDO threshold definition changed to \$1,000 damage to any one person's property or \$2,000 accumulated property damage per crash.



<sup>3</sup> Miles traveled from years 1980 through 1991 have been revised to agree with the Highway Performance Monitoring System's (HPMS) miles traveled. The revised travel was provided by Data Inventory of the SD Department of Transportation.

<sup>4</sup> Number of crashes per 100 million vehicle miles traveled.

<sup>5</sup> Based on statutory changes primarily impacting SDCL 32-5-2.7 in 2008, a vehicle plate can be effective on more than one vehicle per year due to vehicle replacement. Thus, the registration count may be lower than past year s data based on previous plate registration staying with the vehicle.

*Source: SD Department of Public Safety – Office of Accident Records  
SD Department of Transportation – Inventory Management  
SD Department of Revenue – Titles and Registration*

## **Alcohol Involvement**

When comparing records dating back to 1979, 36.7% alcohol involved fatal crashes for 2004 is the lowest. Of the 131 traffic fatalities during 2009, 61 or 46.6% were alcohol related (see Table 2-3). Alcohol statistics dating back to the 1970's show 2008 to have the lowest number of alcohol related fatalities for any one-year period (48). The highest number is 138 for the year of 1973.

**TABLE 2-3  
ALCOHOL INVOLVED CRASHES AS PERCENT OF ALL CRASHES  
2003-2009**

|                | <u>2003</u>     | <u>2004</u>    | <u>2005</u>    | <u>2006</u>    | <u>2007</u>    | <u>2008</u>    | <u>2009</u>    |
|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Total Crashes  | 7.0%<br>(1261)  | 6.7%<br>(1153) | 6.8%<br>(1113) | 7.0%<br>(1099) | 5.9%<br>(959)  | 6.1%<br>(977)  | 6.0%<br>(1022) |
| Fatal Crashes  | 45.1%<br>(78)   | 36.7%<br>(61)  | 39.2%<br>(62)  | 39.0%<br>(67)  | 42.3%<br>(55)  | 41.3%<br>(45)  | 45.5%<br>(51)  |
| Injury Crashes | 13.2%<br>(630)  | 13.3%<br>(607) | 12.7%<br>(552) | 13.4%<br>(563) | 11.5%<br>(467) | 11.4%<br>(467) | 11.6%<br>(474) |
| PDO Crashes    | 4.2%<br>(553)   | 3.9%<br>(485)  | 4.2%<br>(499)  | 4.1%<br>(469)  | 3.6%<br>(437)  | 4.0%<br>(465)  | 3.9%<br>(497)  |
| Fatalities     | 46.3%<br>(94)   | 39.6%<br>(78)  | 39.8%<br>(74)  | 37.7%<br>(72)  | 42.5%<br>(62)  | 39.7%<br>(48)  | 46.6%<br>(61)  |
| Injuries       | 14.4%<br>(1000) | 14.3%<br>(936) | 13.2%<br>(818) | 14.2%<br>(854) | 11.5%<br>(666) | 11.5%<br>(659) | 12.1%<br>(692) |

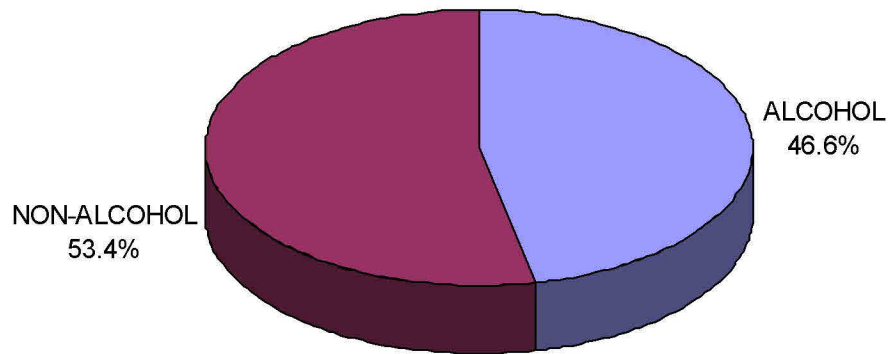
**NOTE:** Alcohol involvement for Fatal Crashes is based upon a positive BAC result and/or Indication of alcohol use by at least one driver, pedestrian or bicycle driver as reported by the investigating officer. For Injury and Property Damage Crashes - It is based upon indication of alcohol use by at least one driver, pedestrian or bicycle driver as reported by the investigating officer.

**TABLE 2-3A  
PERSONS KILLED IN ALCOHOL INVOLVED CRASHES BY AGE  
2003-2009**

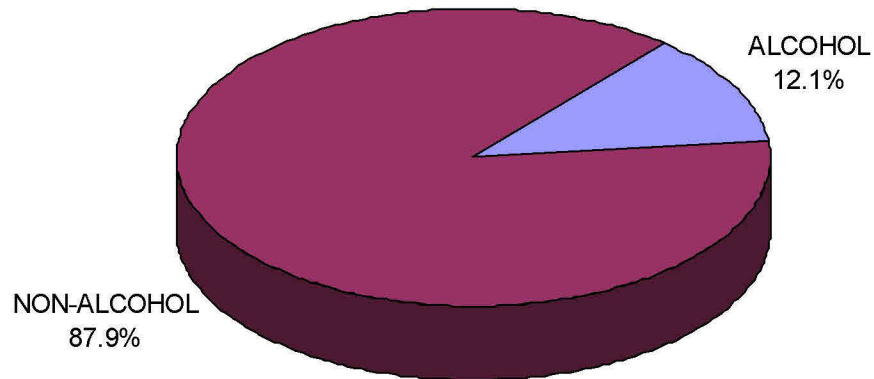
| <u>AGE</u>         | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 0 – 5              | 3           | 3           | 1           | 0           | 0           | 1           | 0           |
| 6 - 12             | 1           | 1           | 0           | 0           | 1           | 0           | 2           |
| 13 - 19            | 18          | 11          | 10          | 13          | 10          | 6           | 15          |
| 20                 | 0           | 3           | 2           | 1           | 1           | 1           | 0           |
| 21 - 29            | 24          | 26          | 20          | 19          | 18          | 15          | 14          |
| 30 - 39            | 22          | 15          | 16          | 15          | 13          | 12          | 11          |
| 40 - 49            | 10          | 11          | 15          | 11          | 13          | 7           | 9           |
| 50 - 59            | 11          | 4           | 5           | 11          | 4           | 4           | 6           |
| 60 & OLDER         | 5           | 4           | 5           | 2           | 2           | 2           | 4           |
| Unknown/Not Stated | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| <b>TOTAL</b>       | <b>94</b>   | <b>78</b>   | <b>74</b>   | <b>72</b>   | <b>62</b>   | <b>48</b>   | <b>61</b>   |

Source: SD Department of Public Safety: Office of Accident Records

**FIGURE 2-2 2009 CRASH FATALITIES**  
**Alcohol Related vs Non Alcohol Related**



**FIGURE 2-3 2009 CRASH INJURIES**  
**Alcohol Related vs Non Alcohol Related**



The following crash and arrest data is presented to monitor changes in alcohol-related fatal and injury crashes and to compare changes with non-alcohol related crash experiences (see TABLE 2-4). Alcohol-related fatal and injury crashes increased by 2.5% while non-alcohol related fatal and injury crashes decreased by 0.4% from the 2008 totals. **The number of DWI arrests decreased by 8% from 2008.**

**TABLE 2-4  
CRASH AND ARREST ACTIVITY  
2000- 2009**

|      | FATAL CRASHES      |                       | FATAL & INJURY CRASHES |                       | DWI <sup>1</sup> | DWI <sup>1</sup> |
|------|--------------------|-----------------------|------------------------|-----------------------|------------------|------------------|
|      | ALCOHOL<br>RELATED | NONALCOHOL<br>RELATED | ALCOHOL<br>RELATED     | NONALCOHOL<br>RELATED | ARRESTS          | CONVICTIONS      |
| 2000 | 65                 | 85                    | 713                    | 4,689                 | 9,430            | 5,543            |
| 2001 | 65                 | 89                    | 628                    | 4,414                 | 8,956            | 5,559            |
| 2002 | 76                 | 83                    | 711                    | 4,150                 | 8,272            | 4,886            |
| 2003 | 78                 | 95                    | 708                    | 4,246                 | 9,011            | 5,628            |
| 2004 | 61                 | 105                   | 668                    | 4,079                 | 9,049            | 5,985            |
| 2005 | 62                 | 96                    | 614                    | 3,890                 | 10,174           | 6,463            |
| 2006 | 67                 | 105                   | 630                    | 3,738                 | 11,282           | 6,801            |
| 2007 | 55                 | 75                    | 522                    | 3,679                 | 11,756           | 7,490            |
| 2008 | 45                 | 64                    | 512                    | 3,704                 | 11,029           | 6,791            |
| 2009 | 51                 | 61                    | 525                    | 3,688                 | 10,147           | 6,462            |

**Note:** [1] – Based on South Dakota Courts - The State of the Judiciary and 2009 Annual Report of the S. D. Unified Judicial System - January 2008 Based on Fiscal Year statistics.  
DWI Convictions are guilty pleas, plus suspended impositions, plus convictions at trial, less dismissals & acquittals at trial.

**FIGURE 2-4** presents the annual counts of DWI arrests, alcohol related fatal and injury crashes, and non-alcohol related fatal and injury crashes from 2000 through 2009.

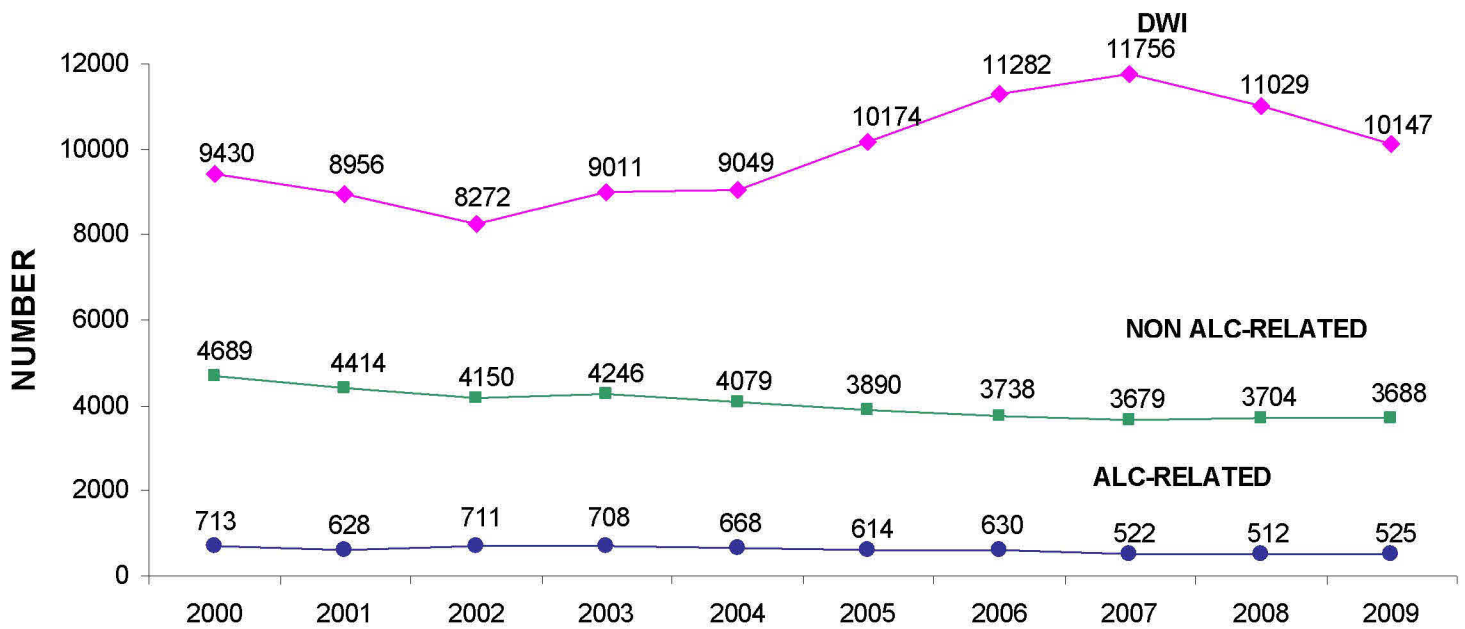
**FIGURE 2-5** presents the alcohol related and non-alcohol related fatal crash experience for the years of 2000 through 2009.

There were 51 alcohol related fatal crashes during 2009, which compares to 45 in 2008. The previous three-year average was 56 for the years of 2006-2008.

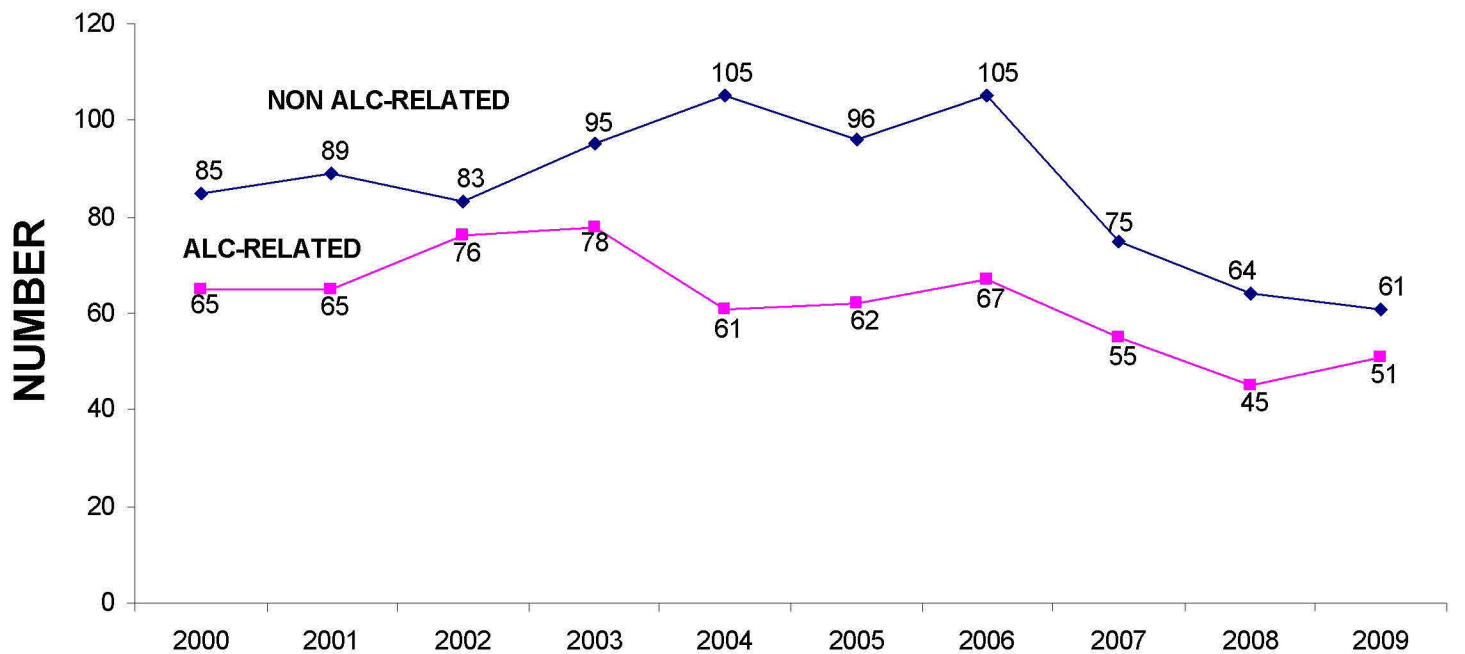
There were 525 alcohol related fatal and injury crashes during 2009, which compares to 512 in 2008. The previous three-year average was 555 or a 5.4 percent decrease in 2009. Non-alcohol related fatal and injury crashes in 2009 decreased (0.4%) when compared to 2008 and decreased 0.5 percent from the previous three-year average (06-08).

There were 10,147 DWI arrests in fiscal year 2009. This level has gone down 10.6% from the previous three-year average (06-08). There were 6,462 DWI convictions in fiscal year 2009. This level has gone down 8% from the previous 3-year average (06-08).

**FIGURE 2-4 FATAL & INJURY CRASHES AND DWIs**



**FIGURE 2-5 FATAL CRASHES**



## **Safety Restraint Usage, Ejection and Child Injuries**

Front seat occupants have been required to be fastened by a safety belt system since 1995. The use of safety equipment is reported for all motor vehicle drivers and only those passengers that are injured. Seventy-nine occupants were killed while not wearing any safety restraint, while twenty-six occupants killed were wearing a lap belt and shoulder harness, and one was wearing a lap belt only. One passenger was killed with child restraint used properly. (See TABLE 2-5)

Fifty-nine (53.2%) of the 111 killed occupants were either partially or totally ejected from the vehicle. (See TABLE 2-5B)

**TABLE 2-5 SAFETY RESTRAINT USAGE - KILLED OCCUPANTS**

|                                   | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| No Safety Equipment               | 103         | 96          | 117         | 74          | 60          | 79          |
| Lap Belt Only                     | 1           | 1           | 1           | 0           | 1           | 1           |
| Shoulder Harness Only             | 2           | 0           | 0           | 0           | 1           | 0           |
| Lap Belt & Shoulder Harness       | 39          | 33          | 23          | 23          | 25          | 26          |
| Child Restraint Used Properly     | 0           | 0           | 1           | 0           | 0           | 1           |
| Child Restraint Not Properly Used | 0           | 1           | 0           | 1           | 1           | 0           |
| Other, Not Stated or Unknown      | 14          | 16          | 16          | 10          | 6           | 4           |
| <b>TOTAL</b>                      | <b>159</b>  | <b>147</b>  | <b>158</b>  | <b>108</b>  | <b>94</b>   | <b>111</b>  |

**TABLE 2-5A SAFETY RESTRAINT USAGE - INJURED OCCUPANTS**

|                                   | <u>2004</u>  | <u>2005</u>  | <u>2006</u>  | <u>2007</u>  | <u>2008</u>  | <u>2009</u>  |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| No Safety Equipment               | 1,361        | 1,238        | 1,173        | 1,058        | 1,080        | 1,012        |
| Lap Belt Only                     | 81           | 79           | 68           | 52           | 59           | 48           |
| Shoulder Harness Only             | 32           | 28           | 21           | 36           | 33           | 35           |
| Lap Belt & Shoulder Harness       | 3,847        | 3,680        | 3,461        | 3,423        | 3,395        | 3,506        |
| Child Restraint Used Properly     | 60           | 66           | 67           | 59           | 66           | 57           |
| Child Restraint Not Properly Used | 2            | 5            | 13           | 4            | 3            | 7            |
| Other, Not Stated or Unknown      | 428          | 373          | 396          | 354          | 314          | 315          |
| <b>TOTAL</b>                      | <b>5,811</b> | <b>5,469</b> | <b>5,199</b> | <b>4,986</b> | <b>4,950</b> | <b>4,980</b> |

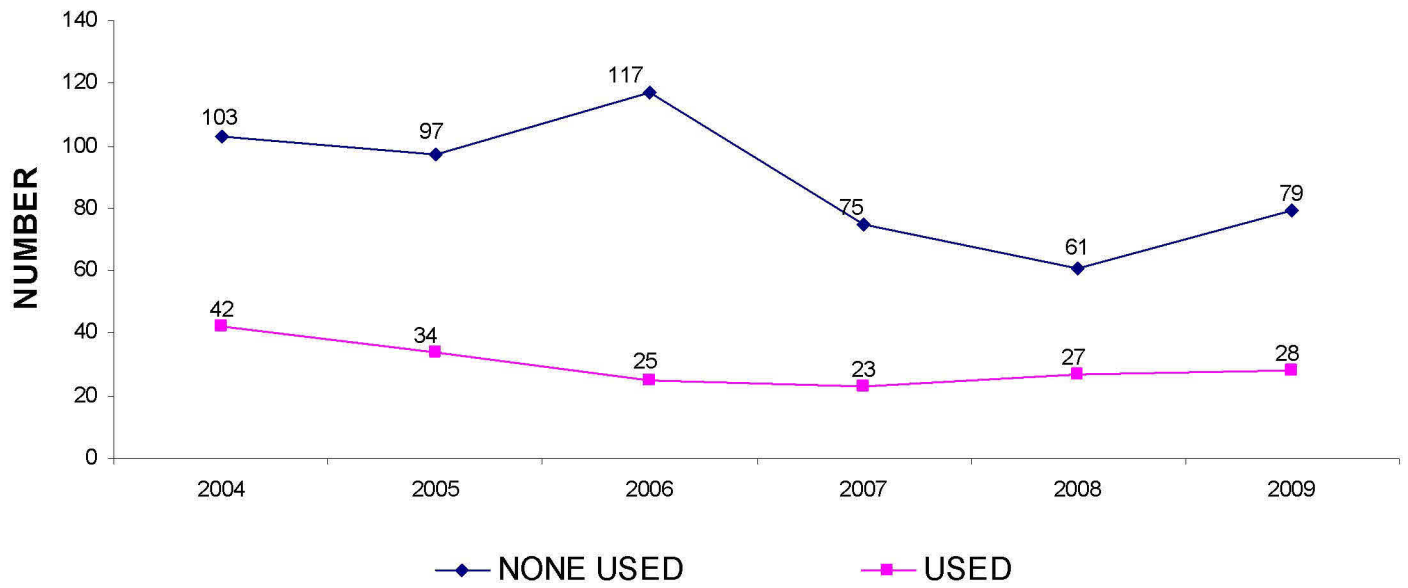
**Note:** Motor vehicle drivers and passengers are considered occupants. Motorcycle, moped, ATV, snowmobile drivers and motorcycle, moped, ATV and snowmobile passengers are not counted in the above tables.

**TABLE 2-5B KILLED & INJURED MOTOR VEHICLE OCCUPANTS BY EJECTION STATUS  
(Excludes Motorcycle, Mopeds, ATVs and Snowmobiles)**

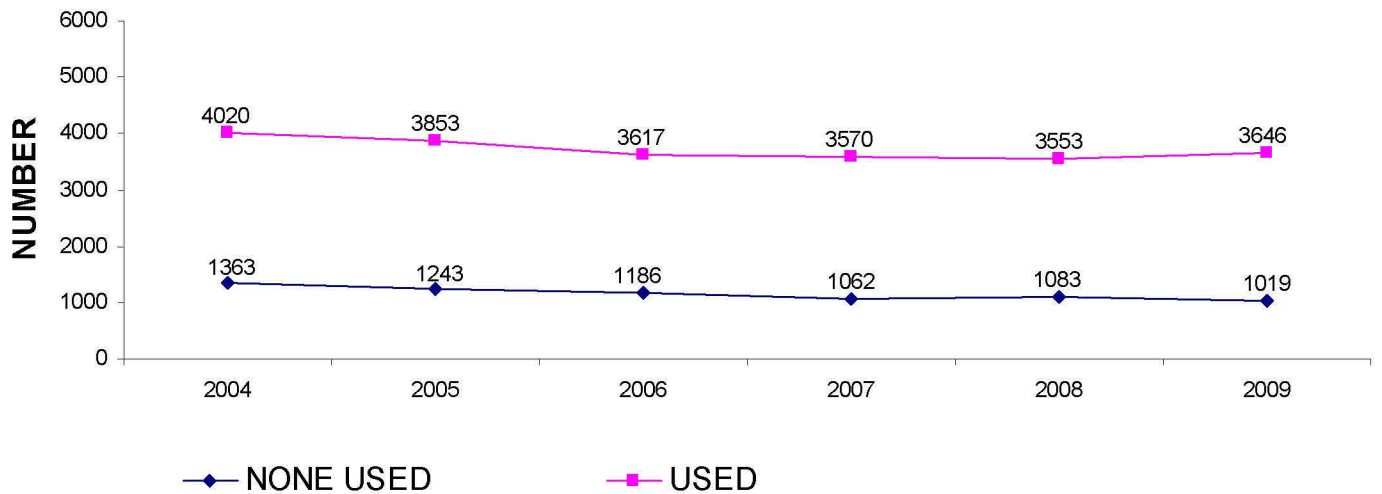
|                  | <b>KILLED</b> |             |             |             |             |             | <b>INJURED</b> |              |              |              |              |              |
|------------------|---------------|-------------|-------------|-------------|-------------|-------------|----------------|--------------|--------------|--------------|--------------|--------------|
|                  | <u>2004</u>   | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2004</u>    | <u>2005</u>  | <u>2006</u>  | <u>2007</u>  | <u>2008</u>  | <u>2009</u>  |
| Not Ejected      | 81            | 73          | 73          | 55          | 47          | 50          | 5,130          | 5,299        | 4,996        | 4,811        | 4,798        | 4,841        |
| Partial Ejection | 14            | 11          | 15          | 4           | 4           | 11          | 20             | 16           | 20           | 15           | 19           | 19           |
| Total Ejection   | 57            | 60          | 68          | 48          | 43          | 48          | 148            | 131          | 159          | 130          | 100          | 107          |
| Unknown Ejection | 7             | 1           | 2           | 1           | 0           | 2           | 505            | 21           | 24           | 30           | 21           | 13           |
| Not Applicable   | 0             | 2           | 0           | 0           | 0           | 0           | 8              | 2            | 0            | 0            | 12           | 0            |
| <b>TOTAL</b>     | <b>159</b>    | <b>147</b>  | <b>158</b>  | <b>108</b>  | <b>94</b>   | <b>111</b>  | <b>5,811</b>   | <b>5,469</b> | <b>5,199</b> | <b>4,986</b> | <b>4,950</b> | <b>4,980</b> |

Source: SD Department of Public Safety: Office of Accident Records

**FIGURE 2-6 SAFETY EQUIPMENT USAGE  
KILLED OCCUPANTS**



**FIGURE 2-7 SAFETY EQUIPMENT USAGE  
INJURED OCCUPANTS**



The Child Passenger Restraint System (SDCL 32-37) law took effect on July 1, 1984 - since that time there have been 58 deaths to occupants of this age group. Only six have been restrained by a child safety restraint properly used, two were restrained by a lap belt only. No deaths have been reported where a lap and shoulder harness was used to restrain the child.

There were two fatalities to motor vehicle occupants from birth through four years of age during 2009, which compares to three fatalities during 2008 (see TABLE 2-6).

There were 79 children (birth through 4 years old) injured in 2009, which compares to 72 for 2008. Sixty-one of the 79 injured children were restrained by a lap belt, a shoulder harness, a lap and shoulder harness or a child safety restraint used properly (see TABLE 2-6A).

**TABLE 2-6  
FATALITIES & INJURIES TO MOTOR VEHICLE OCCUPANTS  
UNDER 5 YEARS OF AGE**

| <u>YEAR</u> | <u>FATALITIES</u> | <u>SERIOUS<br/>INJURY</u> | <u>SLIGHT<br/>INJURY</u> | <u>TOTAL<br/>NONFATAL<br/>INJURIES</u> |
|-------------|-------------------|---------------------------|--------------------------|--|
| 1999        | 1                 | 76                        | 54                       | 130                                    |
| 2000        | 1                 | 45                        | 55                       | 100                                    |
| 2001        | 1                 | 61                        | 52                       | 113                                    |
| 2002        | 2                 | 56                        | 60                       | 116                                    |
| 2003        | 5                 | 53                        | 52                       | 105                                    |
| 2004        | 3                 | 44                        | 57                       | 101                                    |
| 2005        | 2                 | 43                        | 58                       | 101                                    |
| 2006        | 2                 | 49                        | 69                       | 118                                    |
| 2007        | 1                 | 29                        | 47                       | 76                                     |
| 2008        | 3                 | 26                        | 46                       | 72                                     |
| <b>2009</b> | <b>2</b>          | <b>24</b>                 | <b>55</b>                | <b>79</b>                              |

NOTE: Table includes passengers of Motor Vehicles not normally equipped with safety restraints.

**TABLE 2-6A  
FATALITIES & INJURIES TO MOTOR VEHICLE OCCUPANTS UNDER 5 YEARS OLD  
BY SAFETY EQUIPMENT USAGE - 2009**

|                                   | <u>Fatalities</u> | <u>Injuries</u> |
|-----------------------------------|-------------------|-----------------|
| No Safety Equipment Used          | 1                 | 9               |
| Lap Belt Only                     | 0                 | 0               |
| Shoulder Harness Only             | 0                 | 0               |
| Lap Belt & Shoulder Harness       | 0                 | 11              |
| Child Restraint Used Properly     | 1                 | 50              |
| Child Restraint Not Used Properly | 0                 | 5               |
| Other, Not Stated or Unknown      | 0                 | 4               |
| <b>TOTAL</b>                      | <b>2</b>          | <b>79</b>       |

Source: SD Department of Public Safety - Office of Accident Records



## **Cycle and Pedestrian Crashes**

The following tables provide a yearly comparison of South Dakota's motorcycle, pedestrian, and bicycle crashes, injuries, and fatalities. During the last 10 years, the average number of motorcycle-involved crashes is 490 and 21 deaths per year. Licensed motorcyclists increased 3.1 percent during 2009 while fatalities increased by one to 16 (see Table 2-7). Moped crashes are included with motorcycle crashes. There were no moped fatalities during 2009. Over the years, there have been two moped fatalities and the number of injuries is small. See pages 46-51 for additional motorcycle, pedestrian, and bicycle crash information.

**TABLE 2-7  
MOTORCYCLE CRASHES  
1989 - 2009**

| <u>Year</u> | <u>Motorcycle Crashes</u> |              |               | <u>Motorcyclists</u> |                 | <u>Registered<br/>Motorcycles</u> | <u>Licensed<br/>Motorcyclists</u> |
|-------------|---------------------------|--------------|---------------|----------------------|-----------------|-----------------------------------|-----------------------------------|
|             | <u>Total</u>              | <u>Fatal</u> | <u>Injury</u> | <u>Fatalities</u>    | <u>Injuries</u> |                                   |                                   |
| 1989        | 377                       | 14           | 329           | 14                   | 394             | 29,942                            | 45,844                            |
| 1990        | 492                       | 20           | 432           | 23                   | 555             | 23,719                            | 46,184                            |
| 1991        | 407                       | 9            | 359           | 10                   | 420             | 24,133                            | 46,986                            |
| 1992        | 383                       | 10           | 317           | 11                   | 388             | 23,389                            | 47,906                            |
| 1993        | 320                       | 10           | 267           | 12                   | 324             | 26,173                            | 48,822                            |
| 1994        | 387                       | 19           | 326           | 20                   | 415             | 25,822                            | 49,492                            |
| 1995        | 375                       | 14           | 320           | 14                   | 407             | 25,155                            | 49,932                            |
| 1996        | 309                       | 10           | 264           | 11                   | 342             | 24,704                            | 50,013                            |
| 1997        | 316                       | 9            | 261           | 9                    | 334             | 24,561                            | 50,205                            |
| 1998        | 358                       | 9            | 307           | 9                    | 373             | 25,188                            | 51,307                            |
| 1999        | 381                       | 10           | 326           | 10                   | 406             | 25,735                            | 52,641                            |
| 2000        | 473                       | 21           | 404           | 22                   | 520             | 29,175                            | 54,066                            |
| 2001        | 395                       | 19           | 336           | 19                   | 418             | 31,493                            | 55,658                            |
| 2002        | 427                       | 18           | 353           | 20                   | 426             | 33,906                            | 57,471                            |
| 2003        | 515                       | 21           | 448           | 21                   | 568             | 37,528                            | 59,971                            |
| 2004        | 517                       | 24           | 435           | 26                   | 536             | 41,579                            | 62,805                            |
| 2005        | 515                       | 20           | 439           | 22                   | 531             | 46,383                            | 65,019                            |
| 2006        | 544                       | 22           | 461           | 22                   | 589             | 53,451                            | 67,513                            |
| 2007        | 519                       | 25           | 428           | 28                   | 554             | 58,529                            | 70,270                            |
| 2008        | 505                       | 14           | 442           | 15                   | 532             | 58,508                            | 73,500                            |
| <b>2009</b> | <b>493</b>                | <b>14</b>    | <b>429</b>    | <b>16</b>            | <b>508</b>      | <b>62,735</b>                     | <b>75,790</b>                     |

*Source: SD Department of Public Safety – Office of Accident Records*

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**TABLE 2-8**  
**PEDESTRIAN FATALITIES AND INJURIES**  
**1989 - 2009**

| <u>Year</u> | <u>Fatalities</u> | <u>Injuries</u> |
|-------------|-------------------|-----------------|
| 1989        | 10                | 125             |
| 1990        | 15                | 138             |
| 1991        | 11                | 165             |
| 1992        | 7                 | 192             |
| 1993        | 18                | 163             |
| 1994        | 23                | 176             |
| 1995        | 14                | 148             |
| 1996        | 11                | 141             |
| 1997        | 6                 | 124             |
| 1998        | 7                 | 137             |
| 1999        | 11                | 131             |
| 2000        | 13                | 115             |
| 2001        | 15                | 111             |
| 2002        | 8                 | 104             |
| 2003        | 10                | 91              |
| 2004        | 9                 | 95              |
| 2005        | 15                | 89              |
| 2006        | 7                 | 113             |
| 2007        | 7                 | 110             |
| 2008        | 10                | 96              |
| <b>2009</b> | <b>4</b>          | <b>95</b>       |

*Source: SD Department of Public Safety – Office of Accident Records*

**TABLE 2-9**  
**BICYCLE FATALITIES AND INJURIES**  
**1989 - 2009**

| <u>Year</u> | <u>Fatalities</u> | <u>Injuries</u> |
|-------------|-------------------|-----------------|
| 1989        | 2                 | 144             |
| 1990        | 3                 | 135             |
| 1991        | 4                 | 147             |
| 1992        | 1                 | 161             |
| 1993        | 0                 | 179             |
| 1994        | 0                 | 156             |
| 1995        | 1                 | 122             |
| 1996        | 2                 | 139             |
| 1997        | 1                 | 115             |
| 1998        | 2                 | 133             |
| 1999        | 0                 | 102             |
| 2000        | 1                 | 120             |
| 2001        | 1                 | 105             |
| 2002        | 1                 | 87              |
| 2003        | 1                 | 109             |
| 2004        | 1                 | 77              |
| 2005        | 0                 | 99              |
| 2006        | 1                 | 92              |
| 2007        | 0                 | 101             |
| 2008        | 0                 | 103             |
| <b>2009</b> | <b>0</b>          | <b>98</b>       |

*Source: SD Department of Public Safety – Office of Accident Records*

## **Holiday Counts**

TABLE 2-10 provides a yearly comparison of South Dakota motor vehicle crash experience during major holiday observances. These counts are nationally observed and frequently requested.

| <b>TABLE 2-10</b><br><b>CRASHES DURING HOLIDAYS</b><br><b>2000- 2009</b> |                           |                             |                             |                              |                          |                        |
|--|---------------------------|-----------------------------|-----------------------------|------------------------------|--------------------------|------------------------|
| <u><b>Holiday</b></u>  | <u><b>Total Hours</b></u> | <u><b>Total Crashes</b></u> | <u><b>Fatal Crashes</b></u> | <u><b>Injury Crashes</b></u> | <u><b>Fatalities</b></u> | <u><b>Injuries</b></u> |
| <b><u>MEMORIAL DAY</u></b>   |                           |                             |                             |                              |                          |                        |
| 2000   | 78                        | 159                         | 0                           | 39                           | 0                        | 67                     |
| 2001   | 78                        | 133                         | 1                           | 33                           | 1                        | 49                     |
| 2002   | 78                        | 155                         | 2                           | 28                           | 2                        | 43                     |
| 2003   | 78                        | 151                         | 1                           | 27                           | 1                        | 50                     |
| 2004   | 78                        | 143                         | 1                           | 27                           | 1                        | 45                     |
| 2005   | 78                        | 142                         | 1                           | 34                           | 1                        | 53                     |
| 2006   | 78                        | 126                         | 2                           | 38                           | 2                        | 55                     |
| 2007   | 78                        | 127                         | 1                           | 31                           | 1                        | 49                     |
| 2008   | 78                        | 88                          | 0                           | 20                           | 0                        | 26                     |
| <b>2009</b>  | <b>78</b>                 | <b>123</b>                  | <b>2</b>                    | <b>41</b>                    | <b>3</b>                 | <b>60</b>              |
| <b><u>FOURTH OF JULY</u></b>   |                           |                             |                             |                              |                          |                        |
| 2000   | 102                       | 213                         | 5                           | 67                           | 7                        | 110                    |
| 2001   | 30                        | 52                          | 4                           | 15                           | 4                        | 27                     |
| 2002   | 102                       | 189                         | 3                           | 64                           | 3                        | 95                     |
| 2003   | 78                        | 146                         | 1                           | 57                           | 2                        | 82                     |
| 2004   | 78                        | 114                         | 4                           | 27                           | 5                        | 40                     |
| 2005   | 78                        | 138                         | 3                           | 42                           | 6                        | 62                     |
| 2006   | 102                       | 169                         | 3                           | 39                           | 3                        | 54                     |
| 2007   | 30                        | 40                          | 0                           | 13                           | 0                        | 25                     |
| 2008   | 78                        | 137                         | 2                           | 43                           | 2                        | 61                     |
| <b>2009</b>  | <b>78</b>                 | <b>127</b>                  | <b>1</b>                    | <b>32</b>                    | <b>1</b>                 | <b>42</b>              |
| <b><u>LABOR DAY</u></b>  |                           |                             |                             |                              |                          |                        |
| 2000   | 78                        | 144                         | 3                           | 45                           | 4                        | 69                     |
| 2001   | 78                        | 134                         | 4                           | 42                           | 5                        | 64                     |
| 2002   | 78                        | 132                         | 3                           | 38                           | 3                        | 55                     |
| 2003   | 78                        | 123                         | 1                           | 39                           | 1                        | 62                     |
| 2004   | 78                        | 129                         | 0                           | 37                           | 0                        | 51                     |
| 2005   | 78                        | 119                         | 3                           | 39                           | 3                        | 59                     |
| 2006   | 78                        | 115                         | 3                           | 29                           | 3                        | 45                     |
| 2007   | 78                        | 109                         | 1                           | 40                           | 1                        | 70                     |
| 2008   | 78                        | 110                         | 2                           | 36                           | 2                        | 47                     |
| <b>2009</b>  | <b>78</b>                 | <b>122</b>                  | <b>2</b>                    | <b>33</b>                    | <b>2</b>                 | <b>45</b>              |

| <u>Holiday</u>   | <u>Total<br/>Hours</u> | <u>Total<br/>Crashes</u> | <u>Fatal<br/>Crashes</u> | <u>Injury<br/>Crashes</u> | <u>Fatalities</u> | <u>Injuries</u> |
|--|------------------------|--------------------------|--------------------------|---------------------------|-------------------|-----------------|
| <b><u>THANKSGIVING</u></b>   |                        |                          |                          |                           |                   |                 |
| 2000   | 102                    | 210                      | 2                        | 36                        | 2                 | 54              |
| 2001   | 102                    | 260                      | 0                        | 49                        | 0                 | 71              |
| 2002   | 102                    | 259                      | 2                        | 48                        | 2                 | 83              |
| 2003   | 102                    | 222                      | 0                        | 42                        | 0                 | 54              |
| 2004   | 102                    | 274                      | 2                        | 53                        | 2                 | 69              |
| 2005   | 102                    | 279                      | 1                        | 49                        | 1                 | 78              |
| 2006   | 102                    | 268                      | 2                        | 51                        | 2                 | 82              |
| 2007   | 102                    | 260                      | 6                        | 32                        | 7                 | 57              |
| 2008   | 102                    | 241                      | 4                        | 52                        | 5                 | 81              |
| <b>2009</b>  | <b>102</b>             | <b>243</b>               | <b>1</b>                 | <b>38</b>                 | <b>1</b>          | <b>46</b>       |
| <b><u>CHRISTMAS</u></b>  |                        |                          |                          |                           |                   |                 |
| 2000   | 78                     | 126                      | 0                        | 25                        | 0                 | 39              |
| 2001   | 102                    | 160                      | 3                        | 33                        | 3                 | 61              |
| 2002   | 30                     | 31                       | 0                        | 7                         | 0                 | 8               |
| 2003   | 102                    | 195                      | 3                        | 46                        | 3                 | 66              |
| 2004   | 102                    | 85                       | 1                        | 9                         | 1                 | 19              |
| 2005   | 78                     | 98                       | 1                        | 21                        | 4                 | 33              |
| 2006   | 78                     | 112                      | 2                        | 25                        | 2                 | 31              |
| 2007   | 102                    | 239                      | 1                        | 49                        | 1                 | 65              |
| 2008   | 102                    | 148                      | 2                        | 31                        | 4                 | 49              |
| <b>2009</b>  | <b>78</b>              | <b>151</b>               | <b>1</b>                 | <b>29</b>                 | <b>1</b>          | <b>40</b>       |
| <b><u>NEW YEARS</u></b>  |                        |                          |                          |                           |                   |                 |
| 2000-01  | 78                     | 152                      | 2                        | 38                        | 2                 | 54              |
| 2001-02  | 102                    | 166                      | 1                        | 34                        | 1                 | 51              |
| 2002-03  | 30                     | 113                      | 2                        | 26                        | 2                 | 39              |
| 2003-04  | 102                    | 173                      | 0                        | 39                        | 0                 | 53              |
| 2004-05  | 102                    | 110                      | 1                        | 30                        | 1                 | 49              |
| 2005-06  | 78                     | 134                      | 4                        | 27                        | 4                 | 47              |
| 2006-07  | 78                     | 146                      | 0                        | 38                        | 0                 | 59              |
| 2007-08  | 102                    | 137                      | 0                        | 26                        | 0                 | 29              |
| 2008-09  | 102                    | 178                      | 1                        | 29                        | 1                 | 42              |
| <b>2009-10</b>   | <b>78</b>              | <b>142</b>               | <b>2</b>                 | <b>23</b>                 | <b>2</b>          | <b>33</b>       |
| <i>Source: SD Department of Public Safety - Office of Accident Records</i> |                        |                          |                          |                           |                   |                 |

## **Severity of Injuries by Person Type**

The following tables provide a yearly comparison of South Dakota's total injuries, driver's injuries, passenger's injuries, bicyclist's injuries and pedestrian's injuries from 2000 through 2009. The percentages are row percentages.

Note: For definition of class of injury, see page 20.

**TABLE 2-11  
FATALITIES AND SEVERITY OF INJURIES OF TOTAL PERSONS**

| <u>Year</u> | <u>Incapacitating Injuries</u> |             | <u>Non-Incapacitating Injuries</u> |             | <u>Possible Injuries</u> |             | <u>Total Injuries</u> | <u>Total Killed</u> |
|-------------|--------------------------------|-------------|------------------------------------|-------------|--------------------------|-------------|-----------------------|---------------------|
|             | <u>No.</u>                     | <u>%</u>    | <u>No.</u>                         | <u>%</u>    | <u>No.</u>               | <u>%</u>    |                       |                     |
| 2000        | 1,603                          | 20.3        | 2,975                              | 37.7        | 3,310                    | 42.0        | 7,888                 | 173                 |
| 2001        | 1,434                          | 20.1        | 2,693                              | 37.8        | 2,991                    | 42.0        | 7,118                 | 171                 |
| 2002        | 1,466                          | 21.0        | 2,710                              | 38.7        | 2,821                    | 40.3        | 6,997                 | 180                 |
| 2003        | 1,450                          | 20.9        | 2,688                              | 38.7        | 2,806                    | 40.4        | 6,944                 | 203                 |
| 2004        | 1,232                          | 18.9        | 2,366                              | 36.2        | 2,937                    | 44.9        | 6,535                 | 197                 |
| 2005        | 1,167                          | 18.8        | 2,193                              | 35.3        | 2,852                    | 45.9        | 6,212                 | 186                 |
| 2006        | 1,028                          | 17.1        | 2,178                              | 36.2        | 2,809                    | 46.7        | 6,015                 | 191                 |
| 2007        | 883                            | 15.3        | 2,149                              | 37.2        | 2,750                    | 47.6        | 5,782                 | 146                 |
| 2008        | 924                            | 16.2        | 1,989                              | 34.9        | 2,795                    | 49.0        | 5,708                 | 121                 |
| <b>2009</b> | <b>842</b>                     | <b>14.8</b> | <b>1,988</b>                       | <b>34.9</b> | <b>2,874</b>             | <b>50.4</b> | <b>5,704</b>          | <b>131</b>          |

*Note: This table also includes operators of other working type units (ie: motor vehicles used as equipment—snowplows, construction/maintenance vehicles, road graders, etc. & emergency response units.) (See Table 3-1)*

**TABLE 2-12  
FATALITIES AND SEVERITY OF INJURIES OF TOTAL DRIVERS**

| <u>Year</u> | <u>Incapacitating Injuries</u> |             | <u>Non-Incapacitating Injuries</u> |             | <u>Possible Injuries</u> |             | <u>Total Injuries</u> | <u>Total Killed</u> |
|-------------|--------------------------------|-------------|------------------------------------|-------------|--------------------------|-------------|-----------------------|---------------------|
|             | <u>No.</u>                     | <u>%</u>    | <u>No.</u>                         | <u>%</u>    | <u>No.</u>               | <u>%</u>    |                       |                     |
| 2000        | 1,012                          | 19.3        | 1,949                              | 37.3        | 2,269                    | 43.4        | 5,230                 | 97                  |
| 2001        | 929                            | 19.3        | 1,786                              | 37.0        | 2,109                    | 43.7        | 4,824                 | 104                 |
| 2002        | 946                            | 20.3        | 1,761                              | 37.8        | 1,957                    | 42.0        | 4,664                 | 119                 |
| 2003        | 930                            | 19.6        | 1,807                              | 38.0        | 2,018                    | 42.4        | 4,755                 | 124                 |
| 2004        | 844                            | 18.3        | 1,586                              | 34.4        | 2,177                    | 47.3        | 4,607                 | 129                 |
| 2005        | 778                            | 17.7        | 1,485                              | 33.7        | 2,141                    | 48.6        | 4,404                 | 115                 |
| 2006        | 687                            | 16.5        | 1,430                              | 34.3        | 2,058                    | 49.3        | 4,175                 | 134                 |
| 2007        | 576                            | 14.2        | 1,441                              | 35.5        | 2,040                    | 50.3        | 4,057                 | 101                 |
| 2008        | 628                            | 15.4        | 1,372                              | 33.6        | 2,078                    | 51.0        | 4,078                 | 80                  |
| <b>2009</b> | <b>548</b>                     | <b>13.6</b> | <b>1,360</b>                       | <b>33.8</b> | <b>2,115</b>             | <b>52.6</b> | <b>4,023</b>          | <b>89</b>           |

**TABLE 2-13**  
**FATALITIES AND SEVERITY OF INJURIES OF TOTAL PASSENGERS**

| Year        | Incapacitating Injuries |             | Non-Incapacitating Injuries |             | Possible Injuries |             | Total Injuries | Total Killed |
|-------------|-------------------------|-------------|-----------------------------|-------------|-------------------|-------------|----------------|--------------|
|             | No.                     | %           | No.                         | %           | No.               | %           |                |              |
| 2000        | 519                     | 21.4        | 922                         | 38.1        | 982               | 40.5        | 2,423          | 62           |
| 2001        | 442                     | 21.3        | 802                         | 38.6        | 834               | 40.1        | 2,078          | 51           |
| 2002        | 468                     | 21.8        | 861                         | 40.2        | 814               | 38.0        | 2,143          | 52           |
| 2003        | 470                     | 23.6        | 783                         | 39.3        | 738               | 37.1        | 1,991          | 68           |
| 2004        | 346                     | 19.7        | 691                         | 39.4        | 715               | 40.8        | 1,752          | 58           |
| 2005        | 339                     | 20.9        | 633                         | 39.1        | 648               | 40.0        | 1,620          | 56           |
| 2006        | 303                     | 18.5        | 649                         | 39.7        | 683               | 41.8        | 1,635          | 49           |
| 2007        | 270                     | 17.9        | 600                         | 39.8        | 639               | 42.3        | 1,509          | 38           |
| 2008        | 255                     | 17.9        | 507                         | 35.6        | 662               | 46.5        | 1,424          | 31           |
| <b>2009</b> | <b>257</b>              | <b>17.3</b> | <b>536</b>                  | <b>36.1</b> | <b>691</b>        | <b>46.6</b> | <b>1,484</b>   | <b>38</b>    |

**TABLE 2-14**  
**FATALITIES AND SEVERITY OF INJURIES OF TOTAL BICYCLE DRIVERS**

| Year        | Incapacitating Injuries |             | Non-Incapacitating Injuries |             | Possible Injuries |             | Total Injuries | Total Killed |
|-------------|-------------------------|-------------|-----------------------------|-------------|-------------------|-------------|----------------|--------------|
|             | No.                     | %           | No.                         | %           | No.               | %           |                |              |
| 2000        | 29                      | 24.4        | 56                          | 47.1        | 34                | 28.6        | 119            | 1            |
| 2001        | 23                      | 21.9        | 55                          | 52.4        | 27                | 25.7        | 105            | 1            |
| 2002        | 10                      | 11.8        | 49                          | 57.6        | 26                | 30.6        | 85             | 1            |
| 2003        | 17                      | 15.9        | 59                          | 55.1        | 31                | 29.0        | 107            | 1            |
| 2004        | 12                      | 15.6        | 41                          | 53.2        | 24                | 31.2        | 77             | 1            |
| 2005        | 15                      | 15.5        | 49                          | 50.5        | 33                | 34.0        | 97             | 0            |
| 2006        | 10                      | 10.9        | 49                          | 53.3        | 33                | 35.9        | 92             | 1            |
| 2007        | 11                      | 10.9        | 50                          | 49.5        | 40                | 39.6        | 101            | 0            |
| 2008        | 12                      | 11.7        | 68                          | 66.0        | 23                | 22.3        | 103            | 0            |
| <b>2009</b> | <b>13</b>               | <b>13.5</b> | <b>47</b>                   | <b>49.0</b> | <b>36</b>         | <b>37.5</b> | <b>96</b>      | <b>0</b>     |

**TABLE 2-15**  
**FATALITIES AND SEVERITY OF INJURIES OF TOTAL PEDESTRIANS**

| Year        | Incapacitating Injuries |             | Non-Incapacitating Injuries |             | Possible Injuries |             | Total Injuries | Total Killed |
|-------------|-------------------------|-------------|-----------------------------|-------------|-------------------|-------------|----------------|--------------|
|             | No.                     | %           | No.                         | %           | No.               | %           |                |              |
| 2000        | 42                      | 36.5        | 48                          | 41.7        | 25                | 21.7        | 115            | 13           |
| 2001        | 40                      | 36.0        | 50                          | 45.0        | 21                | 18.9        | 111            | 15           |
| 2002        | 42                      | 40.4        | 38                          | 36.5        | 24                | 23.1        | 104            | 8            |
| 2003        | 33                      | 36.3        | 39                          | 42.9        | 19                | 20.9        | 91             | 10           |
| 2004        | 29                      | 30.5        | 47                          | 49.5        | 19                | 20.0        | 95             | 9            |
| 2005        | 35                      | 39.3        | 25                          | 28.1        | 29                | 32.6        | 89             | 15           |
| 2006        | 28                      | 24.8        | 50                          | 44.2        | 35                | 31.0        | 113            | 7            |
| 2007        | 26                      | 23.6        | 56                          | 50.9        | 28                | 25.5        | 110            | 7            |
| 2008        | 28                      | 29.2        | 41                          | 42.7        | 27                | 28.1        | 96             | 10           |
| <b>2009</b> | <b>24</b>               | <b>25.3</b> | <b>44</b>                   | <b>46.3</b> | <b>27</b>         | <b>28.4</b> | <b>95</b>      | <b>4</b>     |

## **Sex of Drivers**

Table 2-16 provides a yearly comparison of drivers involved in motor vehicle crashes by sex of driver. The table also compares licensed drivers by sex.

**TABLE 2-16  
GENDER OF DRIVERS: CRASH & LICENCED  
1999 - 2009**

|             | <u>CRASH INVOLVED DRIVERS</u> |             |               |             | <u>LICENSED DRIVERS</u> |             |                |             |
|-------------|-------------------------------|-------------|---------------|-------------|-------------------------|-------------|----------------|-------------|
|             | <u>MALE</u>                   |             | <u>FEMALE</u> |             | <u>MALE</u>             |             | <u>FEMALE</u>  |             |
|             | <u>No.</u>                    | <u>%</u>    | <u>No.</u>    | <u>%</u>    | <u>No.</u>              | <u>%</u>    | <u>No.</u>     | <u>%</u>    |
| 1999        | 18,190                        | 59.8        | 12,213        | 40.2        | 277,345                 | 50.0        | 277,789        | 50.0        |
| 2000        | 17,737                        | 60.1        | 11,751        | 39.9        | 277,127                 | 49.9        | 277,858        | 50.1        |
| 2001        | 15,774                        | 60.2        | 10,409        | 39.8        | 277,662                 | 49.9        | 278,369        | 50.1        |
| 2002        | 14,975                        | 59.7        | 10,108        | 40.3        | 278,283                 | 49.9        | 279,149        | 50.1        |
| 2003        | 15,382                        | 59.2        | 10,586        | 40.8        | 282,195                 | 49.9        | 283,007        | 50.1        |
| 2004        | 14,614                        | 59.6        | 9,901         | 40.4        | 286,432                 | 49.9        | 287,931        | 50.1        |
| 2005        | 13,681                        | 58.1        | 9,467         | 40.9        | 287,841                 | 49.9        | 289,179        | 50.1        |
| 2006        | 13,114                        | 58.8        | 9,111         | 40.8        | 291,548                 | 50.0        | 290,969        | 50.0        |
| 2007        | 13,529                        | 58.1        | 9,616         | 41.3        | 294,381                 | 50.0        | 294,165        | 50.0        |
| 2008        | 13,334                        | 58.1        | 9,620         | 41.9        | 298,983                 | 50.1        | 298,330        | 49.9        |
| <b>2009</b> | <b>14,030</b>                 | <b>57.4</b> | <b>10,296</b> | <b>42.1</b> | <b>30,1618</b>          | <b>50.1</b> | <b>300,547</b> | <b>49.9</b> |

Note: Crash Involved Drivers table does not include cases where the sex of the driver was not reported.  
Licensed drivers with unknown age not included in totals.

Source: Crash Involved Drivers: SD Department of Public Safety – Office of Accident Records

Source: Licensed Drivers: SD Department of Public Safety – Driver License Issuance



### III. 2009 MOTOR VEHICLE CRASH PROFILE

#### Introduction

This section profiles the reported motor vehicle traffic crashes for 2009. Information will be given on where the crashes are occurring, when crashes happen, who is involved, and factors that contribute to crashes or why they are occurring. Column percentages may not total 100 percent due to rounding error.

During 2009, there were 16,994 reported motor vehicle traffic crashes, the majority of crashes being property damage only 12,781 (75.2%). Injury crashes accounted for 4,101 (24.1%) of the crashes, while 112 (0.7%) were fatal crashes. There were 5,704 persons injured and 131 persons killed in crashes during 2009 (see TABLE 3-1).

**TABLE 3-1  
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS,  
PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS  
2009**

|              | Incapacitating<br>Injuries |            | Non-<br>Incapacitating<br>Injuries |            | Possible<br>Injuries |            | Total<br>Nonfatal<br>Injuries |            | Total<br>Fatalities |            |
|--------------|----------------------------|------------|------------------------------------|------------|----------------------|------------|-------------------------------|------------|---------------------|------------|
|              | No.                        | %          | No.                                | %          | No.                  | %          | No.                           | %          | No.                 | %          |
| Drivers      | 548                        | 65.1       | 1,360                              | 68.4       | 2,115                | 73.6       | 4,023                         | 70.5       | 89                  | 67.9       |
| Passengers   | 257                        | 30.5       | 536                                | 27.0       | 691                  | 24.1       | 1,484                         | 26.0       | 38                  | 29.0       |
| Pedestrians  | 24                         | 2.9        | 44                                 | 2.2        | 27                   | 0.9        | 95                            | 1.7        | 4                   | 3.1        |
| Bicycle Dr   | 13                         | 1.5        | 47                                 | 2.4        | 36                   | 1.3        | 96                            | 1.7        | 0                   | 0.0        |
| Other*       | 0                          | 0.0        | 1                                  | 0.1        | 5                    | 0.2        | 6                             | 0.1        | 0                   | 0.0        |
| <b>TOTAL</b> | <b>842</b>                 | <b>100</b> | <b>1,988</b>                       | <b>100</b> | <b>2,874</b>         | <b>100</b> | <b>5,704</b>                  | <b>100</b> | <b>131</b>          | <b>100</b> |

\*Other – 6 injuries were sustained by operators of working units.

Definition of Injuries:

**Killed:** An injury that results in death. An injury caused death that occurs within 30 days of a crash is considered a crash fatality.

**Incapacitating:** Any injury other than a fatal which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred (severe lacerations, broken limbs or unable to leave the scene of the crash without assistance).

**Non-Incapacitating:** Any injury other than a fatal injury or incapacitating injury that is evident to observers at the scene of the crash (minor lacerations, lumps on the head, abrasions and bruises).

**Possible Injury:** Any injury reported or claimed which is not a fatal injury, incapacitating injury, or non-incapacitating injury (momentary unconsciousness, limping, nausea, or complaint of pain).

Source: SD Department of Public Safety - Office of Accident Records

TABLE 3-2 provides information on persons killed and injured by method or mode of transportation. During 2009, 40.5 percent of the fatalities and 47.3 percent of the injuries occurred to occupants of passenger cars. Occupants of pickups and vans accounted for 23.7 percent of the fatalities and 19.8 percent of the injuries. Additionally, in 2009 sixteen motorcyclists and 4 pedestrians were killed. No bicyclists were killed during 2009 (See Table 3-2).

**TABLE 3-2  
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION  
2009**

|                                 | Fatalities |            | Injuries     |            |
|---------------------------------|------------|------------|--------------|------------|
|                                 | <u>No.</u> | <u>%</u>   | <u>No.</u>   | <u>%</u>   |
| Passenger Cars                  | 53         | 40.5       | 2,698        | 47.3       |
| Pickups, Vans                   | 31         | 23.7       | 1,131        | 19.8       |
| Motorcycle, Moped               | 16         | 12.2       | 495          | 8.7        |
| SUV's (Sports Utility Vehicles) | 22         | 16.8       | 989          | 17.3       |
| Pedestrians                     | 4          | 3.1        | 95           | 1.7        |
| ATV's / 4-Wheelers              | 0          | 0.0        | 22           | 0.4        |
| Trucks (All)*                   | 4          | 3.1        | 108          | 1.9        |
| Bicycle                         | 0          | 0.0        | 98           | 1.7        |
| Other                           | 1          | 0.8        | 63           | 1.1        |
| Farm Machinery                  | 0          | 0.0        | 5            | 0.1        |
| Unknown                         | 0          | 0.0        | 0            | 0.0        |
| <b>TOTAL</b>                    | <b>131</b> | <b>100</b> | <b>5,704</b> | <b>100</b> |

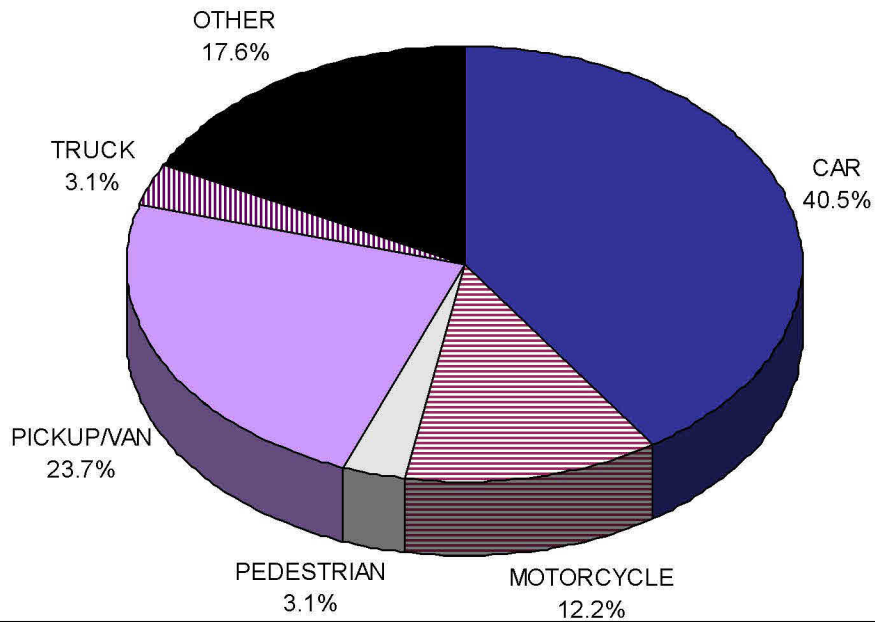
\*Trucks Specifics:

|   | <u>Fatalities</u> | <u>Injuries</u> |
|---|-------------------|-----------------|
| Straight Truck                          | 2                 | 45              |
| Straight Truck with Trailer             | 0                 | 9               |
| Truck Tractor Only                      | 1                 | 2               |
| Truck Tractor with Single Semi Trailer  | 1                 | 49              |
| Truck Tractor with Two or More Trailers | 0                 | 3               |
| <b>TOTAL</b>                            | <b>4</b>          | <b>108</b>      |

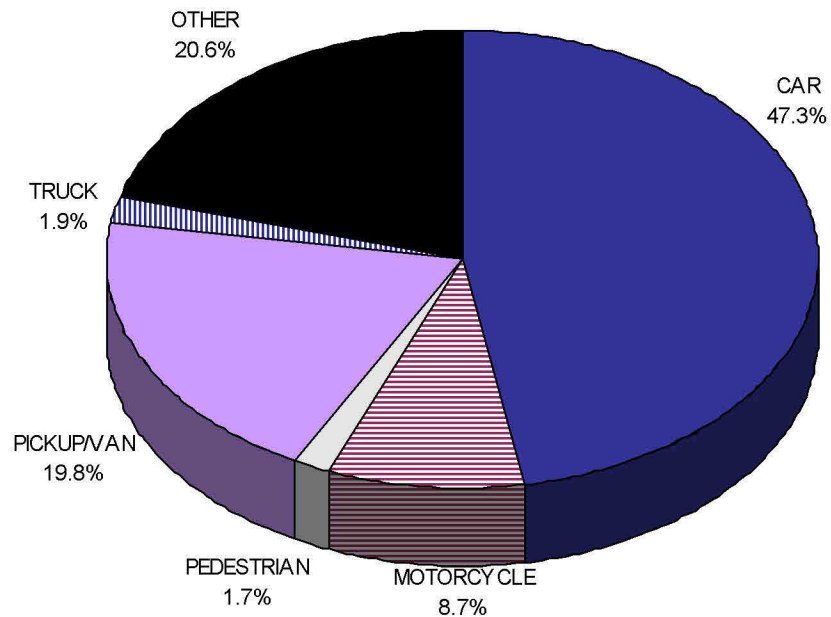
Note: Other includes Bus, Motor Home, Snowmobile, Heavy Equipment, Train, Animal Drawn Vehicle and Other Types of Motor Vehicles.

Source: SD Department of Public Safety – Office of Accident Records

**FIGURE 3-1 FATALITIES BY TRAVEL MODE  
2009**



**FIGURE 3-2 INJURIES BY TRAVEL MODE  
2009**



\*\* Other includes ATVs, SUVs, Bicycle, Farm Machinery, Bus, Motor Home, Snowmobile, Heavy Equipment, Train, Animal Drawn Vehicle and Other Types of Motor Vehicles.

TABLE 3-3 provides information on all crash-involved vehicles by type. Passenger cars made up 39.2 percent of the vehicles involved in fatal crashes and 48.7 percent of those involved in injury crashes. Pickups and vans made up 21.6 percent of the vehicles involved in fatal crashes.

**TABLE 3-3  
VEHICLE TYPES INVOLVED IN CRASHES  
2009**

|                                 | All<br>Crashes |            | Fatal<br>Crashes |            | Injury<br>Crashes |            | PDO<br>Crashes |            |
|---------------------------------|----------------|------------|------------------|------------|-------------------|------------|----------------|------------|
|                                 | No.            | %          | No.              | %          | No.               | %          | No.            | %          |
| Passenger Cars                  | 12,507         | 49.4       | 58               | 39.2       | 3,352             | 48.7       | 9,097          | 49.7       |
| Pickups, Vans                   | 6,494          | 25.6       | 32               | 21.6       | 1,496             | 21.7       | 4,966          | 27.2       |
| SUV's (Sports Utility Vehicles) | 4,502          | 17.8       | 25               | 16.9       | 1,260             | 18.3       | 3,217          | 17.6       |
| Trucks (All)*                   | 1,018          | 4.0        | 15               | 10.1       | 225               | 3.3        | 778            | 4.3        |
| Motorcycle                      | 494            | 2.0        | 15               | 10.1       | 429               | 6.2        | 50             | 0.3        |
| Farm Machinery                  | 33             | 0.1        | 1                | 0.7        | 12                | 0.2        | 20             | 0.1        |
| Bus                             | 116            | 0.5        | 1                | 0.7        | 35                | 0.5        | 80             | 0.4        |
| Motor Home                      | 35             | 0.1        | 1                | 0.7%       | 6                 | 0.1        | 28             | 0.2        |
| ATV's / 4-wheelers              | 27             | 0.1        | 0                | 0.0        | 22                | 0.3        | 5              | 0.0        |
| Moped                           | 33             | 0.1        | 0                | 0.0        | 31                | 0.5        | 2              | 0.0        |
| Snowmobile                      | 3              | 0.0        | 0                | 0.0        | 3                 | 0.0        | 0              | 0.0        |
| Other or Unknown                | 56             | 0.2        | 0                | 0.0        | 11                | 0.2        | 45             | 0.2        |
| <b>TOTAL</b>                    | <b>25,318</b>  | <b>100</b> | <b>148</b>       | <b>100</b> | <b>6,882</b>      | <b>100</b> | <b>18,288</b>  | <b>100</b> |

\* Trucks Specifics:

|   | All<br>Crashes | Fatal<br>Crashes | Injury<br>Crashes | PDO<br>Crashes |
|---|----------------|------------------|-------------------|----------------|
| Straight Truck                          | 423            | 6                | 83                | 334            |
| Straight Truck with Trailer             | 119            | 0                | 16                | 103            |
| Truck Tractor Only                      | 16             | 1                | 2                 | 13             |
| Truck Tractor with Single Semi Trailer  | 426            | 7                | 119               | 300            |
| Truck Tractor with Two or More Trailers | 34             | 1                | 5                 | 28             |
| <b>TOTAL</b>                            | <b>1,018</b>   | <b>15</b>        | <b>225</b>        | <b>778</b>     |

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-4 provides information on the ages of persons killed and injured. A total of 31 people (23.7%) of the persons killed were under 20 years of age and a total of 958 or (16.8%) of the persons injured were from 25 through 34 years of age. Two children ages 0-5 were killed during 2009 (see Table 3-4).

**TABLE 3-4  
FATALITIES AND INJURIES BY AGE GROUP  
2009**

|              | Fatalities |            | Injuries     |            |
|--------------|------------|------------|--------------|------------|
|              | No.        | %          | No.          | %          |
| 0 - 5        | 2          | 1.5        | 105          | 1.8        |
| 6 - 13       | 6          | 4.6        | 269          | 4.7        |
| 14 - 15      | 1          | 0.8        | 228          | 4.0        |
| 16 - 17      | 10         | 7.6        | 384          | 6.7        |
| 18           | 7          | 5.3        | 220          | 3.9        |
| 19           | 5          | 3.8        | 199          | 3.5        |
| 20           | 0          | 0.0        | 203          | 3.6        |
| 21 - 24      | 13         | 9.9        | 595          | 10.4       |
| 25 - 34      | 17         | 13.0       | 958          | 16.8       |
| 35 - 44      | 28         | 21.4       | 692          | 12.1       |
| 45 - 54      | 12         | 9.2        | 801          | 14.0       |
| 55 - 64      | 19         | 14.5       | 576          | 10.1       |
| 65 - Over    | 11         | 8.4        | 470          | 8.2        |
| Unknown      | 0          | 0.0        | 4            | 0.1        |
| <b>Total</b> | <b>131</b> | <b>100</b> | <b>5,704</b> | <b>100</b> |

*Source: SD Department of Public Safety - Office of Accident Records*

## **First Harmful Event**

The initial incident that causes injury or damage is referred to as the first harmful event.

Non-collision (overturning or other non-collision) represented 48.2 percent of the fatal crashes and only 10.1 percent of the total crashes, while 25.9 percent of the fatal crashes and 40.2 percent of all crashes represented a collision between 2 or more vehicles (see TABLE 3-5).

**TABLE 3-5  
FIRST HARMFUL EVENT  
2009**

| <u>First Harmful Event</u>           | <u>Total Crashes</u> |            | <u>Fatal Crashes</u> |            | <u>Injury Crashes</u> |            | <u>PDO Crashes</u> |            |
|--------------------------------------|----------------------|------------|----------------------|------------|-----------------------|------------|--------------------|------------|
|                                      | <u>No.</u>           | <u>%</u>   | <u>No.</u>           | <u>%</u>   | <u>No.</u>            | <u>%</u>   | <u>No.</u>         | <u>%</u>   |
| Motor Vehicle Collision With:        |                      |            |                      |            |                       |            |                    |            |
| MV in Transport                      | 6,827                | 40.2       | 29                   | 25.9       | 2,260                 | 55.1       | 4,538              | 35.5       |
| A Fixed or Other Object              | 2,429                | 14.3       | 17                   | 15.2       | 606                   | 14.8       | 1,806              | 14.1       |
| An Animal                            | 5,094                | 30.0       | 5                    | 4.5        | 120                   | 2.9        | 4,969              | 38.9       |
| A Pedestrian                         | 90                   | 0.5        | 3                    | 2.7        | 87                    | 2.1        | 0                  | 0.0        |
| A Bicyclist                          | 97                   | 0.6        | 0                    | 0.0        | 97                    | 2.4        | 0                  | 0.0        |
| A Parked Motor Vehicle               | 695                  | 4.1        | 1                    | 0.9        | 79                    | 1.9        | 615                | 4.8        |
| A Railroad Vehicle                   | 13                   | 0.1        | 3                    | 2.7        | 6                     | 0.1        | 4                  | 0.0        |
| Equipment in Roadway                 | 38                   | 0.2        | 0                    | 0.0        | 8                     | 0.2        | 30                 | 0.2        |
| Non-Collision (Overturning or Other) | 1,711                | 10.1       | 54                   | 48.2       | 838                   | 20.4       | 819                | 6.4        |
| <b>Total</b>                         | <b>16,994</b>        | <b>100</b> | <b>112</b>           | <b>100</b> | <b>4,101</b>          | <b>100</b> | <b>12,781</b>      | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

## **Manner of Collision**

The most common type of manner of collision between two or more vehicles is an angle collision. Angle collisions constitute 65.5 percent of the fatal crashes, 52.4 percent of the injury crashes, and 57.7 percent of the property damage only crashes. Angle collisions are the most prevalent for severe crashes, accounting for 65.5 percent of the fatal crashes and 56 percent of the total crashes. (See TABLE 3-6).

**TABLE 3-6**  
**MANNER OF COLLISION FOR CRASHES INVOLVING A COLLISION**  
**BETWEEN TWO OR MORE MOTOR VEHICLES**  
**2009**

| <u>Manner of Collision</u>        | <u>Total Crashes</u> |            | <u>Fatal Crashes</u> |            | <u>Injury Crashes</u> |            | <u>PDO Crashes</u> |            |
|-----------------------------------|----------------------|------------|----------------------|------------|-----------------------|------------|--------------------|------------|
|                                   | <u>No.</u>           | <u>%</u>   | <u>No.</u>           | <u>%</u>   | <u>No.</u>            | <u>%</u>   | <u>No.</u>         | <u>%</u>   |
| Rear-End                          | 2,410                | 35.3       | 1                    | 3.4        | 947                   | 41.9       | 1,462              | 32.2       |
| Head-On                           | 86                   | 1.3        | 6                    | 20.7       | 53                    | 2.3        | 27                 | 0.6        |
| Angle                             | 3,820                | 56.0       | 19                   | 65.5       | 1,184                 | 52.4       | 2,617              | 57.7       |
| Sideswipe-Same Direction          | 426                  | 6.2        | 1                    | 3.4        | 52                    | 2.3        | 373                | 8.2        |
| Sideswipe-Opposite Dir.           | 83                   | 1.2        | 2                    | 6.9        | 24                    | 1.1        | 57                 | 1.3        |
| Rear-Rear                         | 2                    | 0.0        | 0                    | 0.0        | 0                     | 0.0        | 2                  | 0.0        |
| Unknown                           | 0                    | 0.0        | 0                    | 0.0        | 0                     | 0.0        | 0                  | 0.0        |
| <b>Total</b>                      | <b>6,827</b>         | <b>100</b> | <b>29</b>            | <b>100</b> | <b>2,260</b>          | <b>100</b> | <b>4,538</b>       | <b>100</b> |
| No Collision Between 2 or more MV | 10,167               |            | 83                   |            | 1,841                 |            | 8,243              |            |
| <b>Total Crashes</b>              | <b>16,994</b>        |            | <b>112</b>           |            | <b>4,101</b>          |            | <b>12,781</b>      |            |

NOTE: Beginning in 2004, South Dakota developed its Crash Data System to conform to the standards established by the Model Minimum Uniform Crash Criteria (MMUCC) guidelines. These guidelines have changed the way the data is collected, such as Manner of Collision. This element will be based on the impact location (i.e. front, side or rear) and vehicle orientation (i.e. facing the same or opposite direction) of the contact vehicles in the First Harmful Event. The data element Turning Movement collected in past years is currently reported as Angle.

Source: SD Department of Public Safety - Office of Accident Records

## **Highway System**

The number of reported crashes by “type of highway system” is presented in TABLE 3-7. **Fatal and PDO crashes happen predominately in rural areas.** City streets and alleys experienced 30.9 percent of the PDO crashes and 46 percent of the injury crashes while accounting for 5.4 percent of the fatal crashes.

Non-interstate rural roads tallied 77.7 percent of the fatal crashes. The Interstate system experienced 2,558 (15.1%) of the total crashes while accounting for an estimated 29.9 percent of the vehicle miles traveled in 2009. Eighteen or 16.1 percent of the fatal crashes happened on the interstate system. (See FIGURES 3-3 and 3-4)

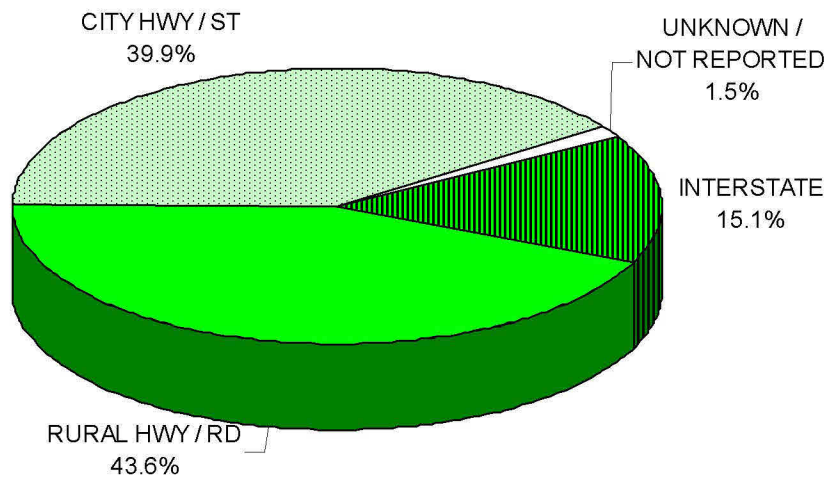
**TABLE 3-7  
CRASHES BY TYPE OF HIGHWAY  
2009**

| <u>Type of Highway</u> | <u>Total<br/>Crashes<br/>Number</u> | <u>%</u>   | <u>Fatal<br/>Crashes<br/>Number</u> | <u>%</u>   | <u>Injury<br/>Crashes<br/>Number</u> | <u>%</u>   | <u>PDO<br/>Crashes<br/>Number</u> | <u>%</u>   | <u>No.<br/>Killed</u> | <u>No.<br/>Injured</u> |
|------------------------|-------------------------------------|------------|-------------------------------------|------------|--------------------------------------|------------|-----------------------------------|------------|-----------------------|------------------------|
| Interstate - Rural     | 1,577                               | 9.3        | 12                                  | 10.7       | 258                                  | 6.3        | 1,307                             | 10.2       | 16                    | 369                    |
| US/State Hwys.-Rural   | 4,530                               | 26.7       | 43                                  | 38.4       | 748                                  | 18.2       | 3,739                             | 29.3       | 51                    | 1,082                  |
| Co./Local Rds.-Rural   | 2,871                               | 16.9       | 44                                  | 39.3       | 625                                  | 15.2       | 2,202                             | 17.2       | 49                    | 892                    |
| Interstate - City      | 981                                 | 5.8        | 6                                   | 5.4        | 182                                  | 4.4        | 793                               | 6.2        | 6                     | 235                    |
| US/State Hwys.-City    | 946                                 | 5.6        | 1                                   | 0.9        | 339                                  | 8.3        | 606                               | 4.7        | 2                     | 499                    |
| City Streets/Alleys    | 5,835                               | 34.3       | 6                                   | 5.4        | 1,885                                | 46.0       | 3,944                             | 30.9       | 7                     | 2,552                  |
| Unknown/Not Reported   | 254                                 | 1.5        | 0                                   | 0.0        | 64                                   | 1.6        | 190                               | 1.5        | 0                     | 75                     |
| <b>Total</b>           | <b>16,994</b>                       | <b>100</b> | <b>112</b>                          | <b>100</b> | <b>4,101</b>                         | <b>100</b> | <b>12,781</b>                     | <b>100</b> | <b>131</b>            | <b>5,704</b>           |

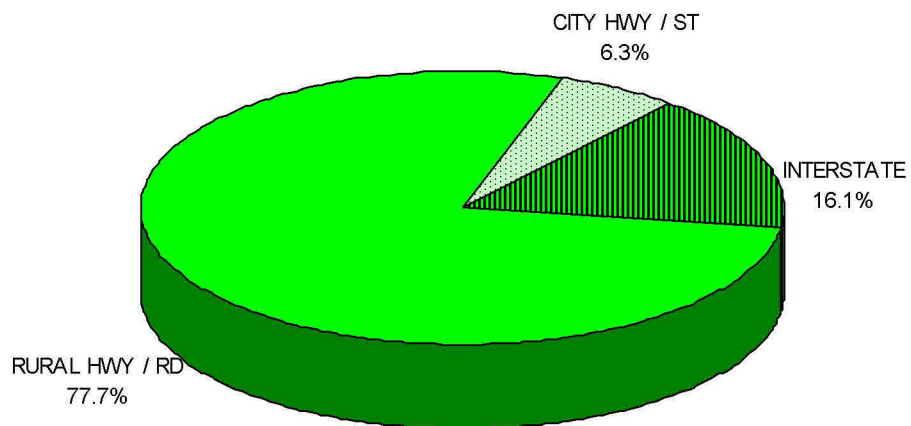
*Source: SD Department of Public Safety – Office of Accident Records*



**FIGURE 3-3 2009  
TRAFFIC CRASHES  
BY SYSTEM TYPE**



**FIGURE 3-4 2009  
FATAL TRAFFIC CRASHES  
BY SYSTEM TYPE**



**TABLE 3-8**  
**MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES**  
**2009**

| County        | Total<br>Crashes | Fatal<br>Crashes | Injury<br>Crashes | PDO<br>Crashes | Fatalities | Injuries     |
|---------------|------------------|------------------|-------------------|----------------|------------|--------------|
| AURORA        | 139              | 1                | 27                | 111            | 1          | 37           |
| BEADLE        | 307              | 3                | 79                | 225            | 4          | 121          |
| BENNETT       | 21               | 0                | 9                 | 12             | 0          | 11           |
| BON HOMME     | 109              | 1                | 17                | 91             | 1          | 24           |
| BROOKINGS     | 565              | 2                | 123               | 440            | 2          | 169          |
| BROWN         | 768              | 2                | 141               | 625            | 2          | 186          |
| BRULE         | 120              | 1                | 19                | 100            | 1          | 22           |
| BUFFALO       | 23               | 0                | 3                 | 20             | 0          | 5            |
| BUTTE         | 177              | 2                | 38                | 137            | 3          | 59           |
| CAMPBELL      | 46               | 0                | 5                 | 41             | 0          | 8            |
| CHARLES MIX   | 90               | 4                | 25                | 61             | 5          | 46           |
| CLARK         | 96               | 0                | 9                 | 87             | 0          | 14           |
| CLAY          | 213              | 2                | 47                | 164            | 2          | 76           |
| CODINGTON     | 618              | 2                | 133               | 483            | 2          | 175          |
| CORSON        | 68               | 2                | 15                | 51             | 2          | 30           |
| CUSTER        | 254              | 0                | 62                | 192            | 0          | 85           |
| DAVISON       | 485              | 2                | 87                | 396            | 2          | 121          |
| DAY           | 73               | 0                | 22                | 51             | 0          | 31           |
| DEUEL         | 101              | 1                | 17                | 83             | 1          | 23           |
| DEWEY         | 73               | 2                | 9                 | 62             | 2          | 13           |
| DOUGLAS       | 35               | 0                | 8                 | 27             | 0          | 9            |
| EDMUNDS       | 118              | 2                | 17                | 99             | 2          | 20           |
| FALL RIVER    | 149              | 2                | 37                | 110            | 3          | 52           |
| FAULK         | 72               | 0                | 12                | 60             | 0          | 19           |
| GRANT         | 145              | 1                | 25                | 119            | 1          | 33           |
| GREGORY       | 40               | 1                | 8                 | 31             | 1          | 11           |
| HAAKON        | 75               | 1                | 7                 | 67             | 1          | 8            |
| HAMLIN        | 137              | 1                | 14                | 122            | 1          | 18           |
| HAND          | 108              | 1                | 14                | 93             | 2          | 22           |
| HANSON        | 124              | 0                | 26                | 98             | 0          | 29           |
| HARDING       | 57               | 1                | 14                | 42             | 1          | 18           |
| HUGHES        | 316              | 0                | 75                | 241            | 0          | 101          |
| HUTCHINSON    | 118              | 1                | 23                | 94             | 1          | 38           |
| HYDE          | 8                | 0                | 2                 | 6              | 0          | 3            |
| JACKSON       | 96               | 2                | 18                | 76             | 2          | 30           |
| JERAULD       | 50               | 1                | 5                 | 44             | 1          | 13           |
| JONES         | 62               | 0                | 10                | 52             | 0          | 12           |
| KINGSBURY     | 188              | 1                | 17                | 170            | 1          | 30           |
| LAKE          | 202              | 0                | 40                | 162            | 0          | 52           |
| LAWRENCE      | 658              | 1                | 180               | 477            | 1          | 240          |
| LINCOLN       | 627              | 4                | 158               | 465            | 4          | 221          |
| LYMAN         | 176              | 3                | 23                | 150            | 5          | 33           |
| MARSHALL      | 114              | 0                | 9                 | 105            | 0          | 13           |
| MC COOK       | 163              | 1                | 26                | 136            | 1          | 37           |
| MC PHERSON    | 41               | 0                | 6                 | 35             | 0          | 8            |
| MEADE         | 520              | 6                | 125               | 389            | 8          | 177          |
| MELLETTTE     | 10               | 0                | 1                 | 9              | 0          | 3            |
| MINER         | 81               | 0                | 11                | 70             | 0          | 15           |
| MINNEHAHA     | 3,786            | 9                | 1,282             | 2,495          | 10         | 1,724        |
| MOODY         | 238              | 0                | 36                | 202            | 0          | 43           |
| PENNINGTON    | 2,227            | 9                | 657               | 1,561          | 10         | 934          |
| PERKINS       | 54               | 0                | 7                 | 47             | 0          | 9            |
| POTTER        | 72               | 0                | 10                | 62             | 0          | 15           |
| ROBERTS       | 174              | 5                | 42                | 127            | 8          | 69           |
| SANBORN       | 99               | 1                | 9                 | 89             | 1          | 11           |
| SHANNON       | 28               | 12               | 7                 | 9              | 12         | 39           |
| SPINK         | 252              | 1                | 22                | 229            | 1          | 29           |
| STANLEY       | 113              | 0                | 12                | 101            | 0          | 17           |
| SULLY         | 27               | 0                | 4                 | 23             | 0          | 6            |
| TODD          | 25               | 5                | 1                 | 19             | 8          | 3            |
| TRIPP         | 147              | 3                | 15                | 129            | 3          | 20           |
| TURNER        | 78               | 1                | 21                | 56             | 1          | 29           |
| UNION         | 239              | 3                | 51                | 185            | 5          | 62           |
| WALWORTH      | 110              | 0                | 16                | 94             | 0          | 19           |
| YANKTON       | 452              | 5                | 105               | 342            | 5          | 144          |
| ZIEBACH       | 37               | 1                | 6                 | 30             | 1          | 10           |
| <b>Total:</b> | <b>16,994</b>    | <b>112</b>       | <b>4,101</b>      | <b>12,781</b>  | <b>131</b> | <b>5,704</b> |

**TABLE 3-8A**  
**ALCOHOL INVOLVED MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES**  
**2009**

| <u>County</u> | <u>Total<br/>Crashes</u> | <u>Fatal<br/>Crashes</u> | <u>Injury<br/>Crashes</u> | <u>PDO<br/>Crashes</u> | <u>Fatalities</u> | <u>Injuries</u> |
|---------------|--------------------------|--------------------------|---------------------------|------------------------|-------------------|-----------------|
| AURORA        | 10                       | 0                        | 6                         | 4                      | 0                 | 8               |
| BEADLE        | 23                       | 1                        | 14                        | 8                      | 1                 | 14              |
| BENNETT       | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| BON HOMME     | 6                        | 0                        | 2                         | 4                      | 0                 | 2               |
| BROOKINGS     | 23                       | 0                        | 10                        | 13                     | 0                 | 18              |
| BROWN         | 39                       | 0                        | 15                        | 24                     | 0                 | 23              |
| BRULE         | 6                        | 0                        | 3                         | 3                      | 0                 | 3               |
| BUFFALO       | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| BUTTE         | 18                       | 1                        | 9                         | 8                      | 1                 | 13              |
| CAMPBELL      | 1                        | 0                        | 0                         | 1                      | 0                 | 0               |
| CHARLES MIX   | 10                       | 1                        | 6                         | 3                      | 1                 | 12              |
| CLARK         | 3                        | 0                        | 1                         | 2                      | 0                 | 1               |
| CLAY          | 7                        | 1                        | 1                         | 5                      | 1                 | 5               |
| CODINGTON     | 33                       | 1                        | 13                        | 19                     | 1                 | 15              |
| CORSON        | 7                        | 1                        | 4                         | 2                      | 1                 | 11              |
| CUSTER        | 10                       | 0                        | 7                         | 3                      | 0                 | 8               |
| DAVISON       | 20                       | 0                        | 10                        | 10                     | 0                 | 11              |
| DAY           | 6                        | 0                        | 4                         | 2                      | 0                 | 5               |
| DEUEL         | 9                        | 0                        | 1                         | 8                      | 0                 | 1               |
| DEWEY         | 4                        | 1                        | 2                         | 1                      | 1                 | 3               |
| DOUGLAS       | 2                        | 0                        | 2                         | 0                      | 0                 | 2               |
| EDMUNDS       | 4                        | 0                        | 3                         | 1                      | 0                 | 5               |
| FALL RIVER    | 15                       | 2                        | 9                         | 4                      | 3                 | 15              |
| FAULK         | 3                        | 0                        | 2                         | 1                      | 0                 | 2               |
| GRANT         | 13                       | 0                        | 6                         | 7                      | 0                 | 8               |
| GREGORY       | 3                        | 0                        | 3                         | 0                      | 0                 | 4               |
| HAAKON        | 2                        | 0                        | 1                         | 1                      | 0                 | 1               |
| HAMLIN        | 5                        | 0                        | 3                         | 2                      | 0                 | 4               |
| HAND          | 1                        | 0                        | 1                         | 0                      | 0                 | 1               |
| HANSON        | 1                        | 0                        | 1                         | 0                      | 0                 | 1               |
| HARDING       | 3                        | 0                        | 1                         | 2                      | 0                 | 1               |
| HUGHES        | 12                       | 0                        | 7                         | 5                      | 0                 | 8               |
| HUTCHINSON    | 5                        | 1                        | 3                         | 1                      | 1                 | 6               |
| HYDE          | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| JACKSON       | 3                        | 2                        | 1                         | 0                      | 2                 | 6               |
| JERAULD       | 2                        | 1                        | 1                         | 0                      | 1                 | 4               |
| JONES         | 1                        | 0                        | 0                         | 1                      | 0                 | 0               |
| KINGSBURY     | 9                        | 1                        | 5                         | 3                      | 1                 | 6               |
| LAKE          | 13                       | 0                        | 7                         | 6                      | 0                 | 10              |
| LAWRENCE      | 42                       | 1                        | 20                        | 21                     | 1                 | 26              |
| LINCOLN       | 34                       | 0                        | 15                        | 19                     | 0                 | 27              |
| LYMAN         | 7                        | 2                        | 3                         | 2                      | 4                 | 9               |
| MARSHALL      | 14                       | 0                        | 5                         | 9                      | 0                 | 6               |
| MC COOK       | 4                        | 0                        | 1                         | 3                      | 0                 | 1               |
| MC PHERSON    | 2                        | 0                        | 2                         | 0                      | 0                 | 4               |
| MEADE         | 39                       | 2                        | 18                        | 19                     | 2                 | 26              |
| MELLETTTE     | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| MINER         | 2                        | 0                        | 1                         | 1                      | 0                 | 1               |
| MINNEHAHA     | 279                      | 3                        | 125                       | 151                    | 3                 | 162             |
| MOODY         | 13                       | 0                        | 6                         | 7                      | 0                 | 6               |
| PENNINGTON    | 145                      | 5                        | 66                        | 74                     | 5                 | 97              |
| PERKINS       | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| POTTER        | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| ROBERTS       | 12                       | 1                        | 5                         | 6                      | 3                 | 10              |
| SANBORN       | 2                        | 0                        | 1                         | 1                      | 0                 | 1               |
| SHANNON       | 14                       | 10                       | 3                         | 1                      | 10                | 23              |
| SPINK         | 9                        | 0                        | 2                         | 7                      | 0                 | 2               |
| STANLEY       | 2                        | 0                        | 1                         | 1                      | 0                 | 1               |
| SULLY         | 0                        | 0                        | 0                         | 0                      | 0                 | 0               |
| TODD          | 4                        | 4                        | 0                         | 0                      | 7                 | 2               |
| TRIPP         | 5                        | 1                        | 3                         | 1                      | 1                 | 3               |
| TURNER        | 9                        | 1                        | 6                         | 2                      | 1                 | 8               |
| UNION         | 18                       | 3                        | 8                         | 7                      | 5                 | 14              |
| WALWORTH      | 8                        | 0                        | 3                         | 5                      | 0                 | 5               |
| YANKTON       | 25                       | 3                        | 16                        | 6                      | 3                 | 20              |
| ZIEBACH       | 1                        | 1                        | 0                         | 0                      | 1                 | 1               |
| <b>Total:</b> | <b>1,022</b>             | <b>51</b>                | <b>474</b>                | <b>497</b>             | <b>61</b>         | <b>692</b>      |

## **County Summary**

TABLE 3-8 provides a summary of all reported crashes by county in South Dakota.

Rural fatal and injury crashes occurred predominately in twelve counties (see TABLE 3-9). Each of these counties reported over two percent of all rural fatal and injury crashes. These twelve counties accounted for 54 percent of rural fatal and injury crashes and 72.7 percent of all fatal and injury crashes in South Dakota. Pennington County has 11.4 percent of all rural fatal and injury crashes with Minnehaha accounting for 6.9 percent. FIGURE 3-5 presents the percentage involvement of rural fatal and injury crashes and compares this to the percentage of rural vehicle miles traveled in these counties.

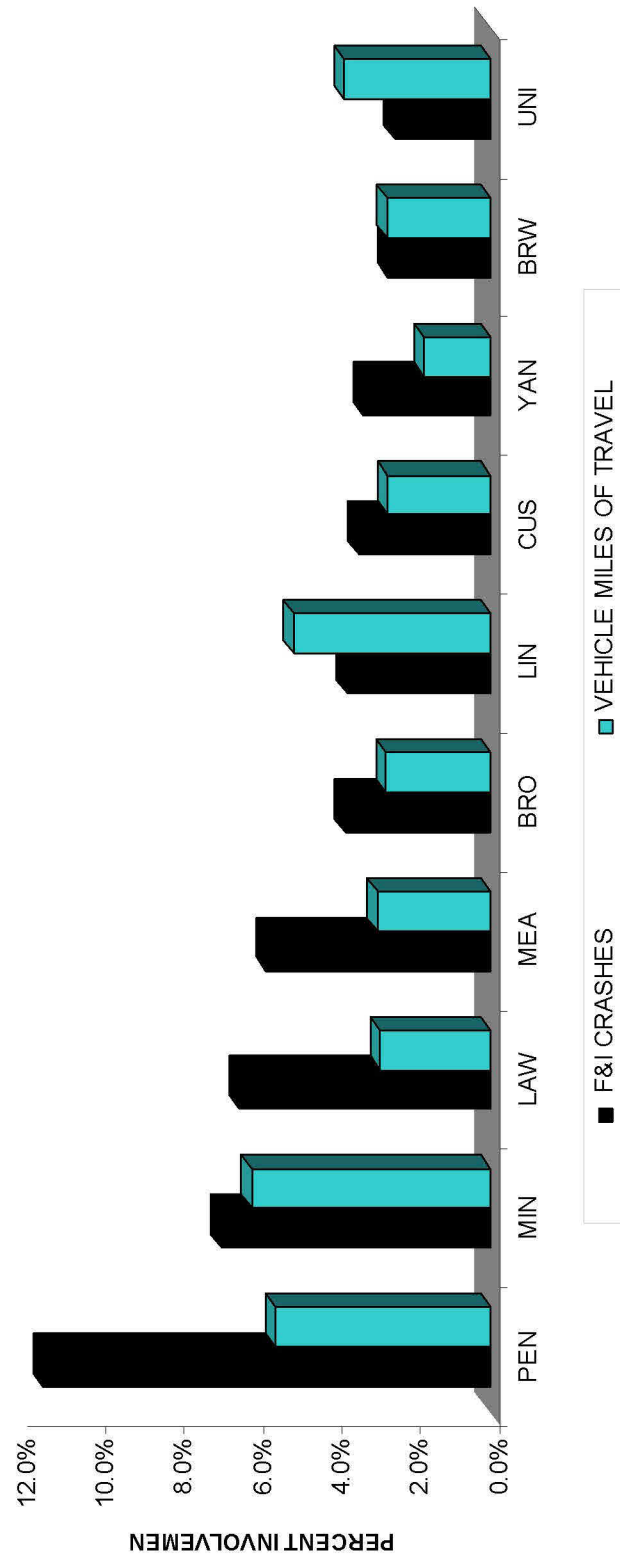
**TABLE 3-9**  
**COUNTIES HAVING MORE THAN TWO PERCENT OF THE**  
**RURAL FATAL & INJURY CRASHES**  
**2009**

| <u>County</u> | <u>Rural Fatal &amp;<br/>Injury Crashes</u> | <u>Percent of All<br/>Rural Fatal &amp;<br/>Injury Crashes</u> | <u>Percent of<br/>Rural VMTS</u> |
|---------------|---|--|----------------------------------|
| PENNINGTON    | 199   | 11.4   | 5.8                              |
| MINNEHAHA     | 120   | 6.9  | 6.8                              |
| LAWRENCE      | 112   | 6.4  | 2.9                              |
| MEADE         | 100   | 5.7  | 3.0                              |
| BROOKINGS     | 65  | 3.7  | 2.8                              |
| LINCOLN       | 65  | 3.7  | 5.6                              |
| CUSTER        | 59  | 3.4  | 2.1                              |
| YANKTON       | 57  | 3.3  | 1.7                              |
| BROWN         | 46  | 2.6  | 2.2                              |
| UNION         | 43  | 2.5  | 4.0                              |
| DAVISON       | 39  | 2.2  | 1.6                              |
| ROBERTS       | 37  | 2.1  | 2.7                              |

Note: Total Rural Fatal and Injury Crashes: 1,745  
S.D. Vehicle Miles of Travel Report (2009 data)

Source: SD Department of Public Safety – Office of Accident Records  
SD Department of Transportation – Data Inventory

FIGURE 3-5 RURAL F&I CRASHES/VMTS  
SELECTED COUNTIES - 2009



## **City Summary**

Reported traffic crashes within South Dakota's cities (population of 2,500 and more) are presented in TABLE 3-10. These cities reported 56.7 percent of the statewide injury crashes and 9.8 percent of the fatal crashes. The two largest cities (Sioux Falls, Rapid City) accounted for 72 percent of fatal and injury crashes occurring in cities and 60.2 percent of the property damage only crashes.

**TABLE 3-10  
TRAFFIC CRASHES SOUTH DAKOTA CITIES  
POPULATION 2500 AND OVER  
2009**

| <u>City</u>   | <u>Total<br/>Crashes</u> | <u>Fatal<br/>Crashes</u> | <u>Injury<br/>Crashes</u> | <u>PDO<br/>Crashes</u> | <u>Fatalities</u> | <u>Injuries</u> |
|---------------|--------------------------|--------------------------|---------------------------|------------------------|-------------------|-----------------|
| Aberdeen      | 361                      | 0                        | 97                        | 264                    | 0                 | 125             |
| Belle Fourche | 37                       | 0                        | 8                         | 29                     | 0                 | 11              |
| Box Elder     | 50                       | 0                        | 17                        | 33                     | 0                 | 43              |
| Brandon       | 36                       | 0                        | 10                        | 26                     | 0                 | 15              |
| Brookings     | 220                      | 0                        | 58                        | 162                    | 0                 | 72              |
| Canton        | 21                       | 0                        | 3                         | 18                     | 0                 | 3               |
| Dell Rapids   | 37                       | 0                        | 2                         | 35                     | 0                 | 3               |
| Hot Springs   | 47                       | 0                        | 13                        | 34                     | 0                 | 15              |
| Huron         | 146                      | 2                        | 54                        | 90                     | 3                 | 78              |
| Lead          | 14                       | 0                        | 4                         | 10                     | 0                 | 5               |
| Madison       | 50                       | 0                        | 14                        | 36                     | 0                 | 17              |
| Milbank       | 24                       | 0                        | 5                         | 19                     | 0                 | 8               |
| Mitchell      | 284                      | 1                        | 49                        | 234                    | 1                 | 62              |
| Mobridge      | 29                       | 0                        | 4                         | 25                     | 0                 | 4               |
| Pierre        | 185                      | 0                        | 58                        | 127                    | 0                 | 80              |
| Rapid City    | 1461                     | 2                        | 441                       | 1018                   | 3                 | 611             |
| Redfield      | 27                       | 0                        | 7                         | 20                     | 0                 | 8               |
| Sioux Falls   | 3159                     | 6                        | 1233                      | 1920                   | 6                 | 1660            |
| Sisseton      | 46                       | 0                        | 10                        | 36                     | 0                 | 14              |
| Spearfish     | 193                      | 0                        | 43                        | 150                    | 0                 | 60              |
| Sturgis       | 94                       | 0                        | 29                        | 65                     | 0                 | 40              |
| Vermillion    | 77                       | 0                        | 14                        | 63                     | 0                 | 21              |
| Watertown     | 417                      | 0                        | 99                        | 318                    | 0                 | 130             |
| Winner        | 19                       | 0                        | 3                         | 16                     | 0                 | 5               |
| Yankton       | 191                      | 0                        | 51                        | 140                    | 0                 | 75              |

*Source: SD Department of Public Safety – Office of Accident Records*

### **Roadway Surface Conditions**

The majority of the crashes occurred on dry roads, including fatal and injury crashes (see TABLE 3-11). Combining similar "bad" road conditions, ice, snow, frost, and slush accounts for 22 percent of all reported property damage crashes and 18 percent of all fatal and injury crashes. Dry roads were reported in 68.9 percent of all fatal and injury crashes.

**TABLE 3-11  
ROADWAY SURFACE CONDITIONS  
2009**

|                        | Total<br>Crashes |            | Fatal<br>Crashes |            | Injury<br>Crashes |            | PDO<br>Crashes |            |
|------------------------|------------------|------------|------------------|------------|-------------------|------------|----------------|------------|
|                        | No.              | %          | No.              | %          | No.               | %          | No.            | %          |
| Dry                    | 11,386           | 67.0       | 96               | 85.7       | 2,806             | 68.4       | 8,484          | 66.4       |
| Wet                    | 1,570            | 9.2        | 3                | 2.7        | 431               | 10.5       | 1,136          | 8.9        |
| Snow                   | 1,714            | 10.1       | 4                | 3.6        | 311               | 7.6        | 1,399          | 10.9       |
| Slush                  | 300              | 1.8        | 0                | 0.0        | 77                | 1.9        | 223            | 1.7        |
| Ice                    | 1,421            | 8.4        | 5                | 4.5        | 314               | 7.7        | 1,102          | 8.6        |
| Frost                  | 132              | 0.8        | 1                | 0.9        | 48                | 1.2        | 83             | 0.6        |
| Water                  | 15               | 0.1        | 0                | 0.0        | 4                 | 0.1        | 11             | 0.1        |
| Sand,mud,dirt,gravel   | 282              | 1.7        | 3                | 2.7        | 85                | 2.1        | 194            | 1.5        |
| Oil                    | 6                | 0.0        | 0                | 0.0        | 3                 | 0.1        | 3              | 0.0        |
| Other                  | 18               | 0.1        | 0                | 0.0        | 13                | 0.3        | 5              | 0.0        |
| Unknown / Not reported | 150              | 0.9        | 0                | 0.0        | 9                 | 0.2        | 141            | 1.1        |
| <b>Total</b>           | <b>16,994</b>    | <b>100</b> | <b>112</b>       | <b>100</b> | <b>4,101</b>      | <b>100</b> | <b>12,781</b>  | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

## **Crashes by Time of Day, Month, and Day of Week**

The peak three-hour period for fatal crashes was 5:00-7:59 p.m. Thirty or 26.8 percent of the fatal crashes occurred during this three hour period. The peak three hour period for injury crashes was 3:00-5:59 p.m. with 1,072 (26.1%) of the injury crashes occurred. The peak three hour period for property damage only crashes was 5:00-7:59 p.m. with 2,660 (20.8%) of the property damage only crashes occurred (see TABLE 3-12).

Twenty fatal crashes or 17.9 percent occurred during July in 2009. The month of August shows 457 injury crashes or 11.1 percent of the injury crashes. The month of November shows 1,808 property damage only crashes which represents 14.1 percent of the property damage only crashes for 2009 (see TABLE 3-13).

The day of the week Friday accounts for 2,882 of the total crashes or 17 percent, with 718 (17.5%) of injury crashes and 2,145 (16.8%) of property damage only crashes. Sunday accounted for 23 fatal crashes or 20.5 percent of the total for 2009 (see TABLE 3-14).

FIGURES 3-6 through 3-8 illustrate the distributions by time of day, month, and day of week.

**TABLE 3-12  
CRASHES BY TIME OF DAY  
2009**

| <u>Time</u>  | <u>Total<br/>Crashes</u> | <u>Fatal<br/>Crashes</u> | <u>Injury<br/>Crashes</u> | <u>PDO<br/>Crashes</u> | <u>Fatalities</u> | <u>Injuries</u> |
|--------------|--------------------------|--------------------------|---------------------------|------------------------|-------------------|-----------------|
| Midnight     | 310                      | 5                        | 64                        | 241                    | 5                 | 97              |
| 1:00 AM      | 261                      | 3                        | 62                        | 196                    | 3                 | 86              |
| 2:00 AM      | 237                      | 9                        | 62                        | 166                    | 9                 | 93              |
| 3:00 AM      | 162                      | 3                        | 38                        | 121                    | 4                 | 48              |
| 4:00 AM      | 203                      | 3                        | 38                        | 162                    | 4                 | 47              |
| 5:00 AM      | 400                      | 3                        | 50                        | 347                    | 3                 | 67              |
| 6:00 AM      | 648                      | 5                        | 89                        | 554                    | 5                 | 119             |
| 7:00 AM      | 1,030                    | 3                        | 195                       | 832                    | 4                 | 286             |
| 8:00 AM      | 715                      | 3                        | 169                       | 543                    | 3                 | 220             |
| 9:00 AM      | 536                      | 7                        | 135                       | 394                    | 9                 | 188             |
| 10:00 AM     | 616                      | 2                        | 180                       | 434                    | 3                 | 250             |
| 11:00 AM     | 711                      | 4                        | 227                       | 480                    | 4                 | 321             |
| 12:00 PM     | 870                      | 5                        | 277                       | 588                    | 5                 | 375             |
| 1:00 PM      | 807                      | 5                        | 250                       | 552                    | 6                 | 346             |
| 2:00 PM      | 803                      | 2                        | 278                       | 523                    | 2                 | 384             |
| 3:00 PM      | 1,138                    | 4                        | 349                       | 785                    | 5                 | 498             |
| 4:00 PM      | 1,055                    | 3                        | 344                       | 708                    | 7                 | 467             |
| 5:00 PM      | 1,332                    | 15                       | 379                       | 938                    | 16                | 514             |
| 6:00 PM      | 1,181                    | 9                        | 241                       | 931                    | 9                 | 344             |
| 7:00 PM      | 993                      | 6                        | 196                       | 791                    | 9                 | 291             |
| 8:00 PM      | 873                      | 2                        | 143                       | 728                    | 4                 | 197             |
| 9:00 PM      | 930                      | 4                        | 116                       | 810                    | 5                 | 175             |
| 10:00 PM     | 655                      | 3                        | 112                       | 540                    | 3                 | 151             |
| 11:00 PM     | 448                      | 3                        | 92                        | 353                    | 3                 | 121             |
| Unknown      | 80                       | 1                        | 15                        | 64                     | 1                 | 19              |
| <b>Total</b> | <b>16,994</b>            | <b>112</b>               | <b>4,101</b>              | <b>12,781</b>          | <b>131</b>        | <b>5,704</b>    |

Source: SD Department of Public Safety – Office of Accident Records



**TABLE 3-13  
CRASHES BY MONTH  
2009**

| <u>Month</u> | <u>Total<br/>Crashes</u> | <u>Fatal<br/>Crashes</u> | <u>Injury<br/>Crashes</u> | <u>PDO<br/>Crashes</u> | <u>Fatalities</u> | <u>Injuries</u> |
|--------------|--------------------------|--------------------------|---------------------------|------------------------|-------------------|-----------------|
| JANUARY      | 1,713                    | 5                        | 358                       | 1,350                  | 9                 | 486             |
| FEBRUARY     | 992                      | 5                        | 241                       | 746                    | 5                 | 355             |
| MARCH        | 1,108                    | 11                       | 279                       | 818                    | 12                | 396             |
| APRIL        | 1,018                    | 4                        | 293                       | 721                    | 6                 | 389             |
| MAY          | 1,138                    | 13                       | 333                       | 792                    | 17                | 471             |
| JUNE         | 1,304                    | 6                        | 379                       | 919                    | 7                 | 516             |
| JULY         | 1,243                    | 20                       | 381                       | 842                    | 22                | 536             |
| AUGUST       | 1,253                    | 13                       | 457                       | 783                    | 15                | 642             |
| SEPTEMBER    | 1,241                    | 12                       | 317                       | 912                    | 12                | 459             |
| OCTOBER      | 1,721                    | 6                        | 357                       | 1,358                  | 6                 | 509             |
| NOVEMBER     | 2,110                    | 12                       | 290                       | 1,808                  | 15                | 372             |
| DECEMBER     | 2,153                    | 5                        | 416                       | 1,732                  | 5                 | 573             |
| <b>Total</b> | <b>16,994</b>            | <b>112</b>               | <b>4,101</b>              | <b>12,781</b>          | <b>131</b>        | <b>5,704</b>    |

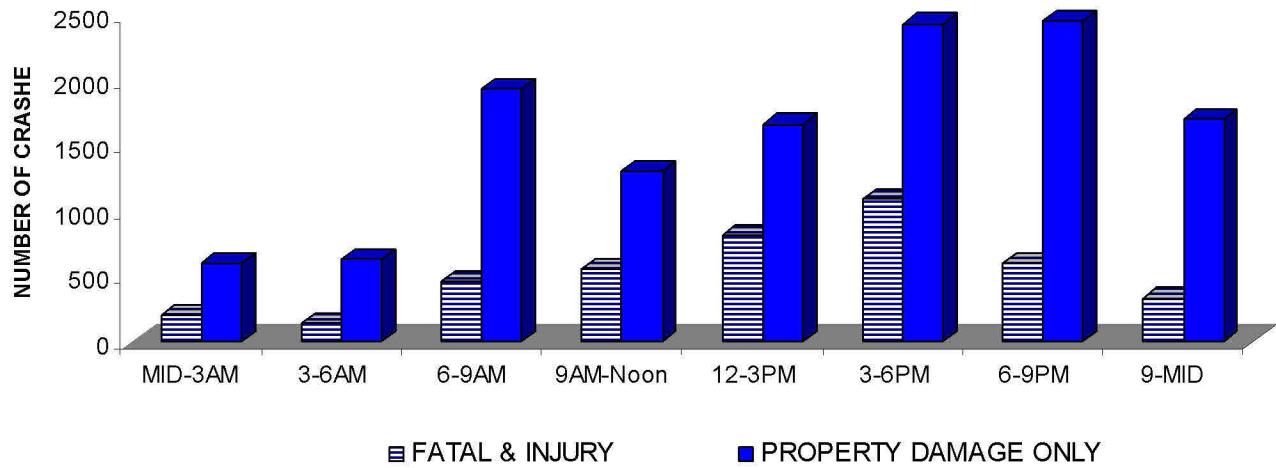
Source: SD Department of Public Safety – Office of Accident Records

**TABLE 3-14  
CRASHES BY DAY OF WEEK  
2009**

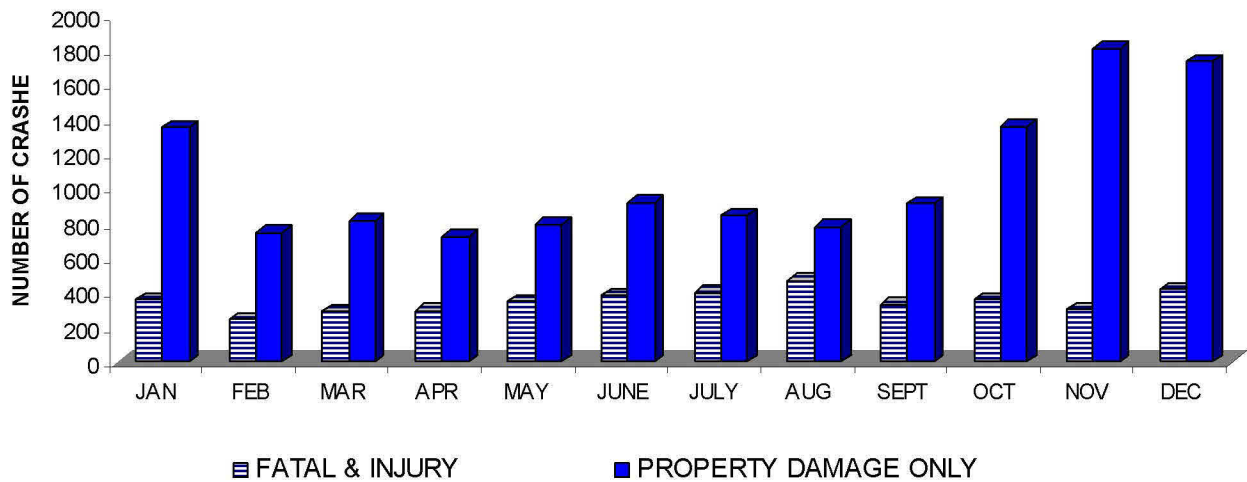
| <u>Day</u>   | <u>Total<br/>Crashes</u> | <u>Fatal<br/>Crashes</u> | <u>Injury<br/>Crashes</u> | <u>PDO<br/>Crashes</u> | <u>Fatalities</u> | <u>Injuries</u> |
|--------------|--------------------------|--------------------------|---------------------------|------------------------|-------------------|-----------------|
| SUNDAY       | 1,932                    | 23                       | 452                       | 1,457                  | 24                | 644             |
| MONDAY       | 2,405                    | 14                       | 559                       | 1,832                  | 16                | 758             |
| TUESDAY      | 2,417                    | 11                       | 549                       | 1,857                  | 11                | 718             |
| WEDNESDAY    | 2,573                    | 17                       | 588                       | 1,968                  | 19                | 813             |
| THURSDAY     | 2,428                    | 6                        | 629                       | 1,793                  | 7                 | 878             |
| FRIDAY       | 2,882                    | 19                       | 718                       | 2,145                  | 24                | 995             |
| SATURDAY     | 2,357                    | 22                       | 606                       | 1,729                  | 30                | 898             |
| <b>Total</b> | <b>16,994</b>            | <b>112</b>               | <b>4,101</b>              | <b>12,781</b>          | <b>131</b>        | <b>5,704</b>    |

Source: SD Department of Public Safety – Office of Accident Records

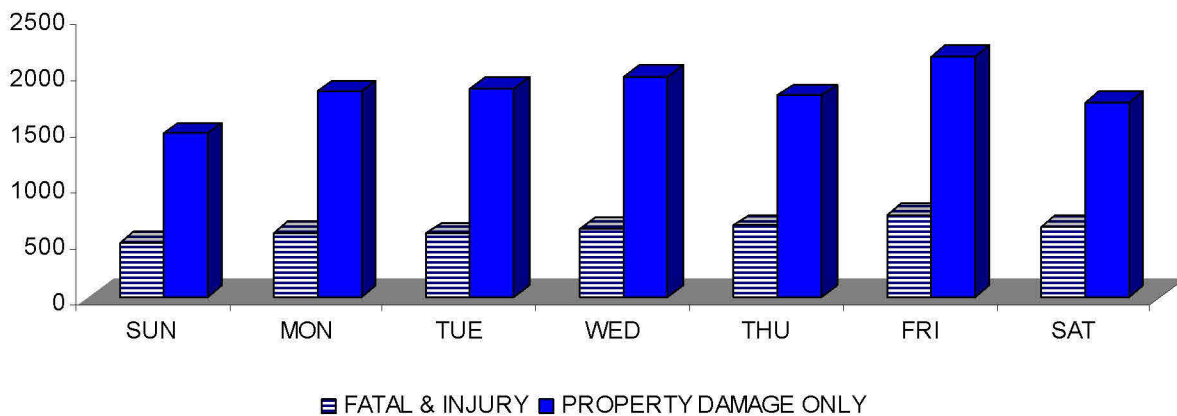
**FIGURE 3-6 CRASHES BY TIME OF DAY 2009**



**FIGURE 3-7 CRASHES BY MONTH 2009**



**FIGURE 3-8 CRASHES BY DAY OF WEEK 2009**



## **Drivers**

In the 16,994 reported motor vehicle crashes there were 24,451 motor vehicle drivers involved, including 146 drivers in fatal crashes and 6,748 drivers in injury crashes. Of these drivers 89 were killed, which is 67.9 percent of all persons killed in motor vehicle crashes and 70.5 percent or 4,023 of the 5,704 injured persons were drivers (see TABLE 3-1).

Young drivers are involved in more crashes than any other age group (see TABLE 3-15). In reported crashes, 29.3 percent of the drivers were under 25 years of age and 47.7 percent were under 35. Age of drivers involved in fatal and injury crashes follow the pattern of drivers in all crashes. Those drivers under 25 represent 24.0 percent of the drivers involved in fatal crashes and 31.2 percent of the drivers in injury crashes. Drivers under the age of 35 make up 42.5 percent of the drivers in fatal crashes and 50.5 percent of the drivers in injury crashes. Forty-two or 28.8 percent of the drivers in fatal crashes were 21-34 years of age (see TABLE 3-15).

**TABLE 3-15  
AGE OF DRIVERS IN CRASHES  
2009**

| <u>Age</u>   | Drivers<br>In All<br>Crashes |            | Drivers<br>In Fatal<br>Crashes |            | Drivers<br>In Injury<br>Crashes |            | Drivers<br>In PDO<br>Crashes |            |
|--------------|------------------------------|------------|--------------------------------|------------|---------------------------------|------------|------------------------------|------------|
|              | <u>No.</u>                   | <u>%</u>   | <u>No.</u>                     | <u>%</u>   | <u>No.</u>                      | <u>%</u>   | <u>No.</u>                   | <u>%</u>   |
| 0 - 5        | 0                            | 0.0        | 0                              | 0.0        | 0                               | 0.0        | 0                            | 0.0        |
| 6 - 13       | 16                           | 0.1        | 1                              | 0.7        | 6                               | 0.1        | 9                            | 0.1        |
| 14 - 15      | 654                          | 2.7        | 1                              | 0.7        | 183                             | 2.7        | 470                          | 2.7        |
| 16 - 17      | 1,544                        | 6.3        | 7                              | 4.8        | 446                             | 6.6        | 1,091                        | 6.2        |
| 18           | 899                          | 3.7        | 5                              | 3.4        | 292                             | 4.3        | 602                          | 3.4        |
| 19           | 798                          | 3.3        | 5                              | 3.4        | 231                             | 3.4        | 562                          | 3.2        |
| 20           | 733                          | 3.0        | 1                              | 0.7        | 221                             | 3.3        | 511                          | 2.9        |
| 21 - 24      | 2,527                        | 10.3       | 15                             | 10.3       | 725                             | 10.7       | 1,787                        | 10.2       |
| 25 - 34      | 4,504                        | 18.4       | 27                             | 18.5       | 1,305                           | 19.3       | 3,172                        | 18.1       |
| 35 - 44      | 3,526                        | 14.4       | 23                             | 15.8       | 941                             | 13.9       | 2,562                        | 14.6       |
| 45 - 54      | 3,965                        | 16.2       | 19                             | 13.0       | 1,032                           | 15.3       | 2,914                        | 16.6       |
| 55 - 64      | 2,848                        | 11.6       | 23                             | 15.8       | 748                             | 11.1       | 2,077                        | 11.8       |
| 65 - Over    | 2,258                        | 9.2        | 16                             | 11.0       | 576                             | 8.5        | 1,666                        | 9.5        |
| Unknown      | 179                          | 0.7        | 3                              | 2.1        | 42                              | 0.6        | 134                          | 0.8        |
| <b>Total</b> | <b>24,451</b>                | <b>100</b> | <b>146</b>                     | <b>100</b> | <b>6,748</b>                    | <b>100</b> | <b>17,557</b>                | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

TABLE 3-16 provides information on the age of drinking drivers in motor vehicle crashes. There were a reported 1,024 drinking drivers in all crashes which is 4.2 percent of all drivers in crashes. Fifty-two or 35.6 percent of drivers in fatal crashes had been drinking while 470 or 7.0 percent of the drivers involved in injury crashes had been drinking.

Young drivers are predominantly the drinking drivers in all crashes. Those drivers under 25 years of age accounted for 38.5 percent of the drinking drivers in fatal crashes and 32.6 percent of the drinking drivers in injury crashes. Those drivers under 35 years of age accounted for 57.7 percent of the drinking drivers in fatal crashes and 60.5 percent of the drinking drivers in all crashes.

**TABLE 3-16  
AGE OF DRINKING DRIVERS IN CRASHES  
2009**

| <u>Age</u>   | Drivers<br>In All<br>Crashes |            | Drivers<br>In Fatal<br>Crashes |            | Drivers<br>In Injury<br>Crashes |            | Drivers<br>In PDO<br>Crashes |            |
|--------------|------------------------------|------------|--------------------------------|------------|---------------------------------|------------|------------------------------|------------|
|              | <u>No.</u>                   | <u>%</u>   | <u>No.</u>                     | <u>%</u>   | <u>No.</u>                      | <u>%</u>   | <u>No.</u>                   | <u>%</u>   |
| 6 - 13       | 1                            | 0.1        | 1                              | 1.9        | 0                               | 0.0        | 0                            | 0.0        |
| 14 - 15      | 5                            | 0.5        | 0                              | 0.0        | 1                               | 0.2        | 4                            | 0.8        |
| 16 - 17      | 35                           | 3.4        | 5                              | 9.6        | 16                              | 3.4        | 14                           | 2.8        |
| 18           | 35                           | 3.4        | 3                              | 5.8        | 16                              | 3.4        | 16                           | 3.2        |
| 19           | 31                           | 3.0        | 2                              | 3.8        | 15                              | 3.2        | 14                           | 2.8        |
| 20           | 46                           | 4.5        | 0                              | 0.0        | 17                              | 3.6        | 29                           | 5.8        |
| 21 - 24      | 210                          | 20.5       | 9                              | 17.3       | 88                              | 18.7       | 113                          | 22.5       |
| 25 - 34      | 257                          | 25.1       | 10                             | 19.2       | 126                             | 26.8       | 121                          | 24.1       |
| 35 - 44      | 172                          | 16.8       | 8                              | 15.4       | 84                              | 17.9       | 80                           | 15.9       |
| 45 - 54      | 147                          | 14.4       | 6                              | 11.5       | 68                              | 14.5       | 73                           | 14.5       |
| 55 - 64      | 56                           | 5.5        | 4                              | 7.7        | 26                              | 5.5        | 26                           | 5.2        |
| 65 - Over    | 20                           | 2.0        | 1                              | 1.9        | 10                              | 2.1        | 9                            | 1.8        |
| Unknown      | 9                            | 0.9        | 3                              | 5.8        | 3                               | 0.6        | 3                            | 0.6        |
| <b>Total</b> | <b>1,024</b>                 | <b>100</b> | <b>52</b>                      | <b>100</b> | <b>470</b>                      | <b>100</b> | <b>502</b>                   | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

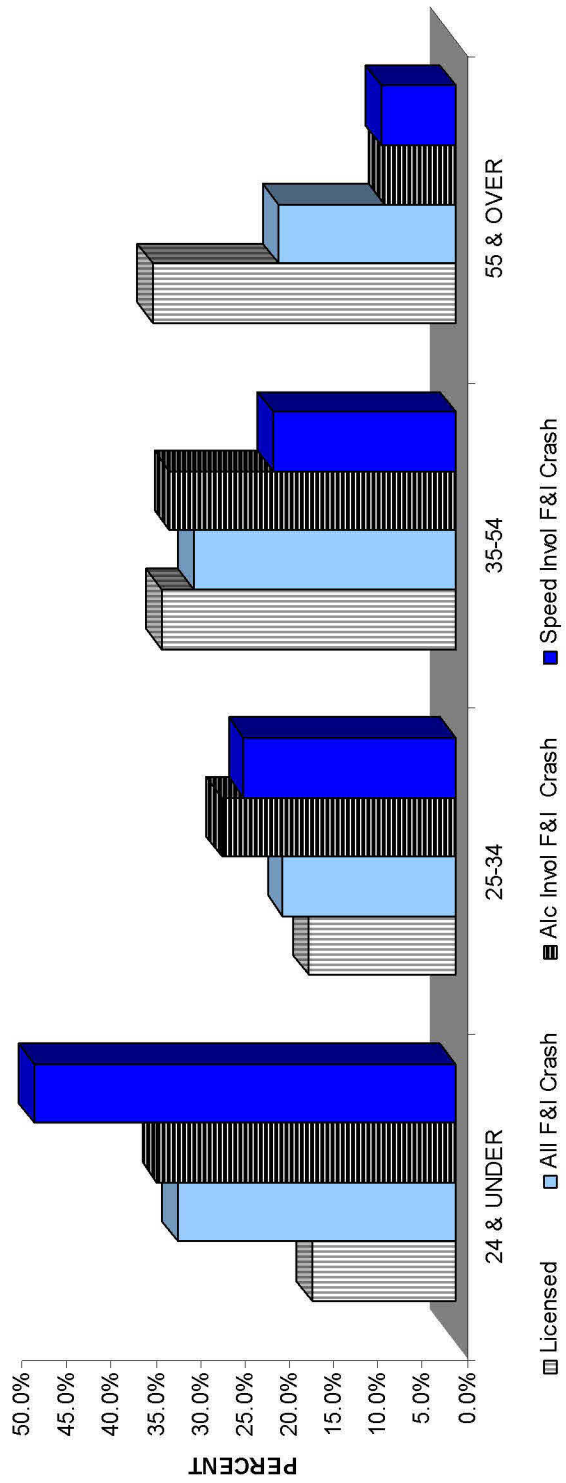
TABLE 3-17 compares age of drivers in fatal and injury crashes, drinking drivers in fatal and injury crashes, and speeding drivers in fatal and injury crashes with licensed drivers by age. The young driver is over represented as those drivers in fatal and injury crashes, drinking drivers in fatal and injury crashes, and speeding drivers in fatal and injury crashes. In South Dakota, licensed drivers under 25 years of age represent 16.2 percent of the total licensed drivers, 33.1 percent of the drinking drivers in fatal and injury crashes and 47.3 percent of the speeding drivers in fatal and injury crashes. Drivers under 35 years of age constitute 32.8 percent of all licensed drivers, with 59.2 percent of the drinking drivers and 71.0 percent of the speeding drivers involved in fatal and injury crashes being under 35 years of age (also see FIGURES 3-9 and 3-10).

**TABLE 3-17**  
**LICENSED DRIVERS AND FATAL AND INJURY CRASH-INVOLVED DRIVERS BY AGE**  
**2009**

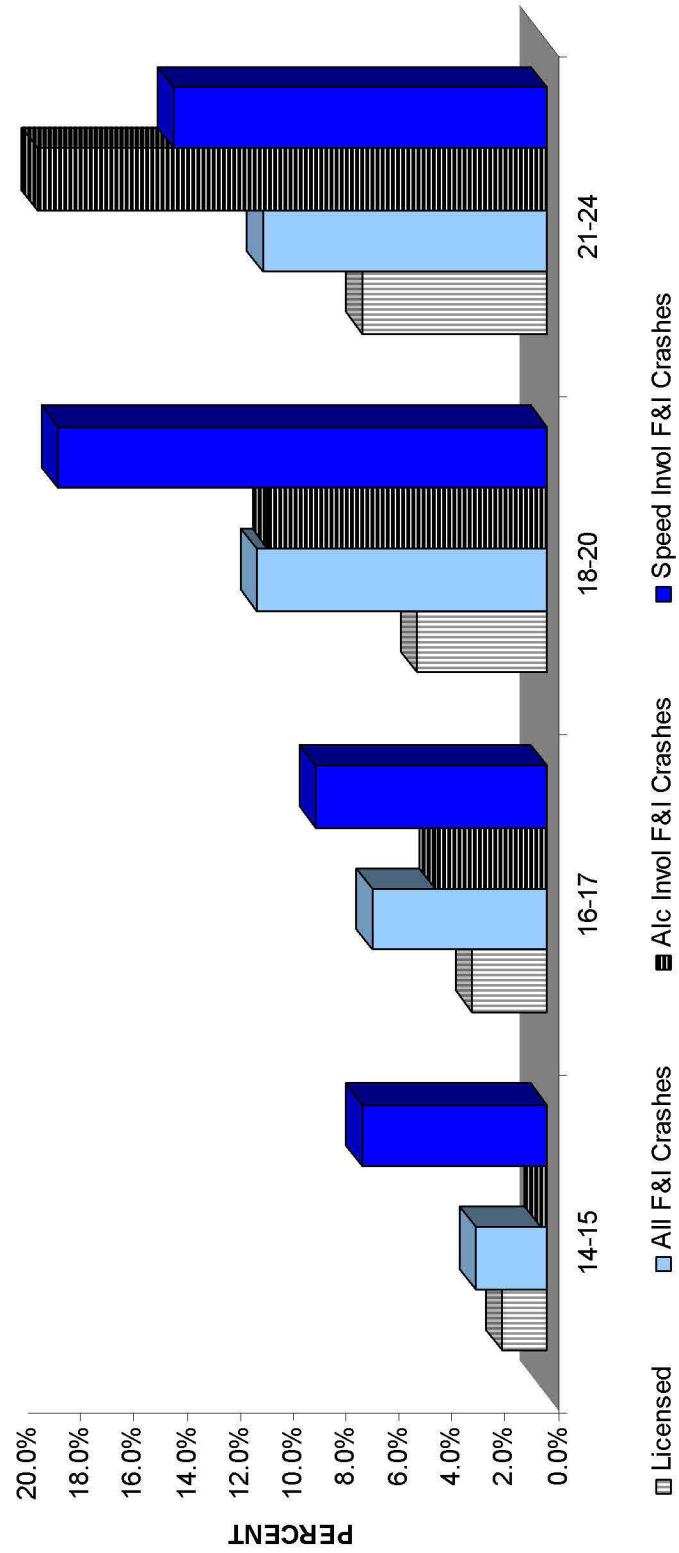
| <u>Age</u>   | <u>Licensed<br/>Drivers %</u> | <u>Drivers In<br/>Fatal &amp; Injury<br/>Crashes</u> |            | <u>Drinking<br/>Drivers In<br/>Fatal &amp; Injury<br/>Crashes</u> |            | <u>Speeding<br/>Drivers In<br/>Fatal &amp; Injury<br/>Crashes</u> |            |
|--------------|-------------------------------|--|------------|---|------------|---|------------|
|              |                               | <u>No.</u>   | <u>%</u>   | <u>No.</u>  | <u>%</u>   | <u>No.</u>  | <u>%</u>   |
| 0 - 13       | 0.0                           | 7  | 0.1        | 1   | 0.2        | 0   | 0.0        |
| 14 - 15      | 1.7                           | 184  | 2.7        | 1   | 0.2        | 35  | 6.8        |
| 16 - 17      | 2.8                           | 453  | 6.6        | 21  | 4.0        | 44  | 8.6        |
| 18           | 1.6                           | 297  | 4.3        | 19  | 3.6        | 35  | 6.8        |
| 19           | 1.6                           | 236  | 3.4        | 17  | 3.3        | 32  | 6.2        |
| 20           | 1.7                           | 222  | 3.2        | 17  | 3.3        | 26  | 5.1        |
| 21 - 24      | 6.9                           | 740  | 10.7       | 97  | 18.6       | 71  | 13.8       |
| 25 - 34      | 16.6                          | 1,332  | 19.3       | 136   | 26.1       | 122   | 23.7       |
| 35 - 44      | 14.6                          | 964  | 14.0       | 92  | 17.6       | 57  | 11.1       |
| 45 - 54      | 18.5                          | 1,051  | 15.2       | 74  | 14.2       | 48  | 9.3        |
| 55 - 64      | 16.2                          | 771  | 11.2       | 30  | 5.7        | 25  | 4.9        |
| 65 - Over    | 17.9                          | 592  | 8.6        | 11  | 2.1        | 18  | 3.5        |
| Unknown      | 0.0                           | 45   | 0.7        | 6   | 1.1        | 1   | 0.2        |
| <b>TOTAL</b> | <b>100</b>                    | <b>6,894</b>   | <b>100</b> | <b>522</b>  | <b>100</b> | <b>514</b>  | <b>100</b> |

*Sources: SD Department of Public Safety – Office of Accident Records  
SD Department of Public Safety – Driver License Issuance*

**FIGURE 3-9 DRIVERS BY AGE GROUP 2009**  
**Fatal and Injury Crash Involved Drivers**



**FIGURE 3-10 YOUNG DRIVERS 2009**  
**Fatal & Injury Crash Involved Drivers**



### **Contributing Circumstances (Vision Obscurement and Road)**

Contributing circumstances at the crash level involve two categories: vision obscurement and road. The reporting officer may include one or no contributing circumstances for each category.

Vision Obscurement - refers to conditions such as: weather condition; physical obstruction; windshield or window obscured by frost, snow, mud, etc.; snow bank; trees, crops, bushes or other vegetation; guardrail barrier; motor vehicle; building; signs, billboards, etc.; glare; and other. Weather condition was the most frequently reported vision obscurement and was indicated as a problem in 4 percent of all crashes.

Road Contributing Circumstances - These contributing circumstances include road surface condition (wet, icy, snow, slush, etc.); road shoulder conditions; objects or animals in the road; phantom vehicle; pedestrians, bicyclists, other non-occupant in roadway; work zone conditions, rough roads; and faulty or missing traffic control devices. The most common condition reported was road surface condition, and it was reported as a factor in 22.3 percent of all crashes.

### **Motor Vehicle Driver Contributing Circumstances**

Driver actions are reported to indicate possible factors that may have contributed to the crashes. These factors are referred to as driver contributing circumstances. Drinking was the leading driver contributing circumstance in fatal crashes during 2009. Running off road and speeding were other leading driver contributing circumstances in fatal crashes. It was indicated that the drinking of 33 or 22.6 percent of the drivers in fatal crashes contributed to the crash. Failing to Yield to Another Vehicle was the leading contributing circumstance in injury crashes. Running off Road, Driving too Fast for Conditions and Following Too Close were other leading driver contributing circumstances in injury crashes (see TABLE 3-18).



**TABLE 3-18**  
**MOTOR VEHICLE DRIVER CONTRIBUTING CIRCUMSTANCES**  
**2009**

|   | Drivers in<br>All Crashes |      | Drivers in<br>Fatal Crashes |      | Drivers in<br>Injury Crashes |      | Drivers in<br>PDO Crashes |      |
|---|---------------------------|------|-----------------------------|------|------------------------------|------|---------------------------|------|
|   | No.                       | %    | No.                         | %    | No.                          | %    | No.                       | %    |
| Disregarded Traffic Signs or Signals  | 658                       | 2.7  | 7                           | 4.8  | 280                          | 4.1  | 371                       | 2.1  |
| Distracted  | 888                       | 3.6  | 0                           | 0.0  | 361                          | 5.3  | 527                       | 3.0  |
| Drinking  | 665                       | 2.7  | 33                          | 22.6 | 325                          | 4.8  | 307                       | 1.7  |
| Driving Too Fast for Condition  | 1,960                     | 8.0  | 6                           | 4.1  | 559                          | 8.3  | 1,395                     | 7.9  |
| Exceeded Speed Limit  | 387                       | 1.6  | 27                          | 18.5 | 189                          | 2.8  | 171                       | 1.0  |
| Fail to Yield to Vehicle  | 2,783                     | 11.4 | 10                          | 6.8  | 901                          | 13.4 | 1,872                     | 10.7 |
| Failure to Keep in Proper Lane  | 467                       | 1.9  | 13                          | 8.9  | 127                          | 1.9  | 327                       | 1.9  |
| Fatigued/Fell Asleep  | 200                       | 0.8  | 0                           | 0.0  | 98                           | 1.5  | 102                       | 0.6  |
| Following Too Closely   | 1,053                     | 4.3  | 2                           | 1.4  | 407                          | 6.0  | 644                       | 3.7  |
| Improper Backing  | 358                       | 1.5  | 0                           | 0.0  | 26                           | 0.4  | 332                       | 1.9  |
| Improper Passing  | 144                       | 0.6  | 3                           | 2.1  | 35                           | 0.5  | 106                       | 0.6  |
| Improper Turn   | 322                       | 1.3  | 3                           | 2.1  | 82                           | 1.2  | 237                       | 1.3  |
| Not Stated**  | 4,736                     | 19.4 | 0                           | 0.0  | 0                            | 0.0  | 4,736                     | 27.0 |
| Other*  | 1,268                     | 5.2  | 9                           | 6.2  | 449                          | 6.7  | 810                       | 4.6  |
| Over-correcting/Over-steering   | 530                       | 2.2  | 16                          | 11.0 | 219                          | 3.2  | 295                       | 1.7  |
| Running Off Road  | 1,064                     | 4.4  | 29                          | 19.9 | 402                          | 6.0  | 633                       | 3.6  |
| Swerving or Avoiding due to wind, slippery surface, vehicle, object, non-motorist, etc. | 523                       | 2.1  | 4                           | 2.7  | 164                          | 2.4  | 355                       | 2.0  |
| Unknown   | 769                       | 3.1  | 12                          | 8.2  | 230                          | 3.4  | 527                       | 3.0  |
| Wrong Side of Road  | 96                        | 0.4  | 6                           | 4.1  | 44                           | 0.7  | 46                        | 0.3  |
| <b>Total Drivers</b>  | <b>24,451</b>             |      | <b>146</b>                  |      | <b>6,748</b>                 |      | <b>17,557</b>             |      |

Note: The investigating officer may assign from zero to two contributing circumstances to each driver, therefore, the number of drivers in motor vehicle crashes does not equal the number of contributing circumstances.

\*Other includes cell phones, drugs-medication, drugs-other, failed to yield to pedestrian, illegally in roadway, illness, improper lane change, improper parking, improper signal or failure to signal, improper start from parked position, other electronic devices, and physical impairment.

\*\* Not Stated includes first harmful event of animal hit for property damage only crashes.

Source: SD Department of Public Safety - Office of Accident Records

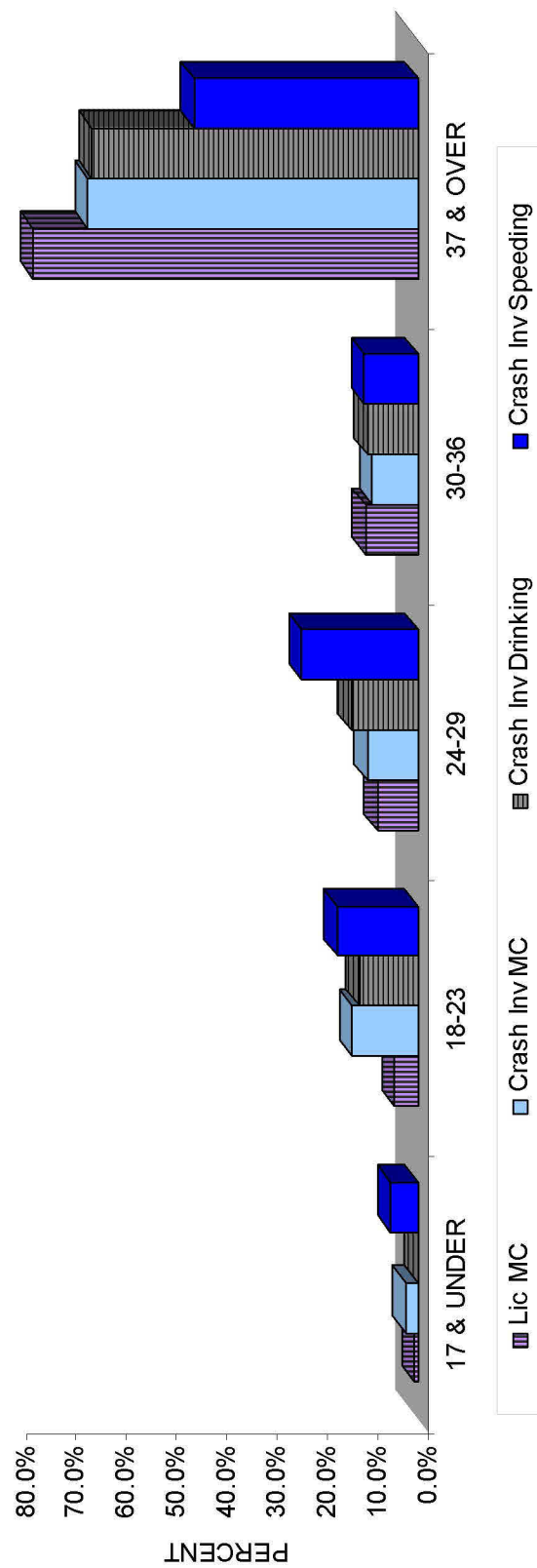
## **Motorcycles**

Motorcycle crashes constitute 2.9 percent of all crashes, 12.5 percent of all fatal crashes, and 7.5 percent of all injury crashes. There were 16 people killed and 508 injured on motorcycles in the 493 reported motorcycle crashes during 2009 (see TABLE 2-7). The young motorcycle driver is over represented in crashes when compared to their portion of licensed motorcycle operators. The licensed drivers under 20 years of age represent 1.4 percent of the licensed motorcycle drivers, 5.7 percent of drivers involved in motorcycle crashes, and 7.1 percent of the speeding drivers involved in motorcycle crashes (see TABLE 3-19 and FIGURE 3-11).

**TABLE 3-19  
MOTORCYCLISTS BY AGE GROUP  
2009**

| Age Group  | Licensed Motorcyclists |            | Motorcycle Drivers In Crashes |            | Drinking Motorcycle Drivers In Crashes |            | Speeding Motorcycle Drivers In Crashes |            |
|--|------------------------|------------|-------------------------------|------------|--|------------|--|------------|
|  | No.                    | %          | No.                           | %          | No.                                    | %          | No.                                    | %          |
| 0 - 13   | 0                      | 0.0        | 0                             | 0.0        | 0                                      | 0.0        | 0                                      | 0.0        |
| 14 - 15  | 48                     | 0.1        | 2                             | 0.4        | 0                                      | 0.0        | 0                                      | 0.0        |
| 16 - 17  | 317                    | 0.4        | 10                            | 1.9        | 0                                      | 0.0        | 3                                      | 5.4        |
| 18 - 19  | 733                    | 1.0        | 18                            | 3.4        | 2                                      | 3.3        | 1                                      | 1.8        |
| 20 - 21  | 1,171                  | 1.5        | 29                            | 5.5        | 1                                      | 1.6        | 4                                      | 7.1        |
| 22 - 23  | 1,539                  | 2.0        | 21                            | 4.0        | 4                                      | 6.6        | 4                                      | 7.1        |
| 24 - 25  | 1,932                  | 2.5        | 21                            | 4.0        | 1                                      | 1.6        | 7                                      | 12.5       |
| 26 - 27  | 1,945                  | 2.6        | 17                            | 3.2        | 5                                      | 8.2        | 5                                      | 8.9        |
| 28 - 29  | 2,172                  | 2.9        | 14                            | 2.7        | 2                                      | 3.3        | 1                                      | 1.8        |
| 30 - 31  | 2,192                  | 2.9        | 11                            | 2.1        | 0                                      | 0.0        | 2                                      | 3.6        |
| 32 - 36  | 5,746                  | 7.6        | 36                            | 6.9        | 6                                      | 9.8        | 4                                      | 7.1        |
| 37 - 41  | 6,994                  | 9.2        | 40                            | 7.6        | 6                                      | 9.8        | 5                                      | 8.9        |
| 42 - 51  | 20,053                 | 26.5       | 112                           | 21.3       | 17                                     | 27.9       | 9                                      | 16.1       |
| 52 - Over  | 30,948                 | 40.8       | 191                           | 36.4       | 16                                     | 26.2       | 11                                     | 19.6       |
| Unknown  | 0                      | 0.0        | 3                             | 0.6        | 1                                      | 1.6        | 0                                      | 0.0        |
| <b>Total</b>   | <b>75,790</b>          | <b>100</b> | <b>525</b>                    | <b>100</b> | <b>61</b>                              | <b>100</b> | <b>56</b>                              | <b>100</b> |
| <i>Sources: SD Department of Public Safety – Office of Accident Records<br/>SD Department of Public Safety – Driver License Issuance</i> |                        |            |                               |            |  |            |  |            |

**FIGURE 3-11 MOTORCYCLISTS 2009**  
**Crash Involved Motorcycle & Moped Drivers**



There were 16 motorcyclist fatalities during 2009. Fourteen were motorcycle drivers and two passengers. One passenger wore a helmet only, one driver wore helmet and eye protection, eight drivers and one passenger wore eye protection only and five drivers did not use safety equipment. Helmets were used by 178 or 35.2 percent of the motorcycle drivers in crashes while 327 or 64.8 percent did not wear a helmet (see TABLE 3-20).

**TABLE 3-20**  
**HELMET USE BY MOTORCYCLE DRIVERS IN CRASHES**  
**2009**

| <u>Age</u>   | Helmet Used |             | Helmet Not Used |             |
|--------------|-------------|-------------|-----------------|-------------|
|              | <u>No.</u>  | <u>%</u>    | <u>No.</u>      | <u>%</u>    |
| 06 - 13      | 0           | 0.0         | 0               | 0.0         |
| 14 - 15      | 0           | 0.0         | 2               | 100.0       |
| 16 - 17      | 7           | 70.0        | 3               | 30.0        |
| 18 - 20      | 10          | 27.8        | 26              | 72.2        |
| 21 - 24      | 10          | 25.0        | 30              | 75.0        |
| 25 - 34      | 17          | 24.6        | 52              | 75.4        |
| 35 - 44      | 28          | 38.4        | 45              | 61.6        |
| 45 - Over    | 105         | 38.5        | 168             | 61.5        |
| Unknown      | 1           | 50.0        | 1               | 50.0        |
| <b>Total</b> | <b>178</b>  | <b>35.2</b> | <b>327</b>      | <b>64.8</b> |

Note: Percentages are row percents. Excludes unknown, not stated and other helmet usage.  
 Helmet only and helmet and eye protection counted as used.  
 Eye protection only counted as not used.

Source: SD Department of Public Safety – Office of Accident Records

## **Pedestrians**

There were four pedestrian deaths and 95 injuries in motor vehicle crashes during 2009 (see TABLE 3-21). The youngest pedestrian killed was sixteen years old, while the oldest was sixty years old. Of the injured pedestrians, 16.8 percent were between the ages of 5-13. Cities accounted for 91.6 percent of the pedestrian injuries, while 100 percent of the fatalities were rural (see TABLE 3-23). Of the four pedestrians killed, 3 were male and 1 female. Of the 95 pedestrians injured, 50 were male and 45 female.

Officers reported that all four of the pedestrians killed had not been drinking alcohol (see TABLE 3-22).

**TABLE 3-21  
AGE OF PEDESTRIANS IN TRAFFIC CRASHES  
2009**

| <u>Age</u>   | <u>Fatalities</u> |            | <u>Injuries</u> |            |
|--------------|-------------------|------------|-----------------|------------|
|              | <u>No.</u>        | <u>%</u>   | <u>No.</u>      | <u>%</u>   |
| 0 - 4        | 0                 | 0.0        | 0               | 0.0        |
| 5 - 13       | 0                 | 0.0        | 16              | 16.8       |
| 14 - 19      | 2                 | 50.0       | 10              | 10.5       |
| 20 - 24      | 0                 | 0.0        | 12              | 12.6       |
| 25 - 34      | 0                 | 0.0        | 13              | 13.7       |
| 35 - 44      | 1                 | 25.0       | 15              | 15.8       |
| 45 - 54      | 0                 | 0.0        | 11              | 11.6       |
| 55 - 64      | 1                 | 25.0       | 10              | 10.5       |
| 65 - Over    | 0                 | 0.0        | 8               | 8.4        |
| <b>Total</b> | <b>4</b>          | <b>100</b> | <b>95</b>       | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

**TABLE 3-22**  
**ALCOHOL INVOLVEMENT BY PEDESTRIANS**  
**2009**

| <u>Alcohol Involvement</u> | <u>Fatalities</u><br><u>No.</u> | <u>%</u>   | <u>Injuries</u><br><u>No.</u> | <u>%</u>   |
|----------------------------|---------------------------------|------------|-------------------------------|------------|
| Alcohol or Drugs           | 0                               | 0.0        | 16                            | 16.8       |
| No Alcohol                 | 4                               | 100.0      | 79                            | 83.2       |
| Unknown                    | 0                               | 0.0        | 0                             | 0.0        |
| <b>Total</b>               | <b>4</b>                        | <b>100</b> | <b>95</b>                     | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

**TABLE 3-23**  
**RURAL vs. CITY PEDESTRIAN CRASHES**  
**2009**

|              | <u>Fatalities</u> | <u>%</u>   | <u>Injuries</u> | <u>%</u>   |
|--------------|-------------------|------------|-----------------|------------|
| Rural        | 4                 | 100.0      | 8               | 8.4        |
| City         | 0                 | 0.0        | 87              | 91.6       |
| <b>Total</b> | <b>4</b>          | <b>100</b> | <b>95</b>       | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

## **Bicycles**

During 2009 there were no bicyclists killed (see TABLE 2-9). There were 96 bicycle drivers injured in reported motor vehicle crashes during 2009 (see TABLE 3-24). The leading factor in bicycle-involved crashes was improper crossing which was reported for 19.1 percent of the injured bicycle drivers. Seventy-eight of the bicycle drivers in crashes had no contributing circumstances. The yearly 1989-2009 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

**TABLE 3-24  
AGE OF BICYCLE DRIVERS IN TRAFFIC CRASHES  
2009**

| <u>Age</u>   | <u>Fatalities<br/>Number</u> | <u>Injuries<br/>Number</u> | <u>%</u>   |
|--------------|------------------------------|----------------------------|------------|
| 0 - 4        | 0                            | 3                          | 3.1        |
| 5 - 13       | 0                            | 33                         | 34.4       |
| 14 - 19      | 0                            | 16                         | 16.7       |
| 20 - 24      | 0                            | 10                         | 10.4       |
| 25 - 34      | 0                            | 9                          | 9.4        |
| 35 - 44      | 0                            | 12                         | 12.5       |
| 45 - 54      | 0                            | 7                          | 7.3        |
| 55 - 64      | 0                            | 5                          | 5.2        |
| 65 - Over    | 0                            | 1                          | 1.0        |
| <b>Total</b> | <b>0</b>                     | <b>96</b>                  | <b>100</b> |

*Source: SD Department of Public Safety – Office of Accident Records*

## IV. IMPORTANT EVENTS AND DATES

- March 1, 1974** - Speed limit lowered to 55 miles per hour.
- July 1, 1976** - Right turn on red is allowed unless prohibited by a sign reading "No right turn on red".
- July 1, 1977** - Helmet law repealed for motorcycle drivers and passengers age 18 and over.
- April 1, 1979** - Motor Vehicle Safety Inspection repealed.
- March 1, 1982** - Driving While Intoxicated Enforcement campaign began.
- July 1, 1984** - Child safety restraints became a law for children under age 5.
- April 15, 1987** - Speed limit on rural interstate raised to 65 miles per hour.
- April 1, 1988** - Drinking age raised to 21.
- April 1, 1992** - Commercial drivers license required for commercial vehicle operators.
- January 1, 1995** - Safety belt law became effective for front seat occupants.
- April 1, 1996** - Speed limit raised to 75 miles per hour on rural Interstate and 65 on most US and State Highways.
- January 1, 1999** - Graduated Driver License law implemented.
- July 1, 2001** - Safety belt primary law for all occupants age 17 and under.
- July 1, 2002** - BAC Level changed from .10 to .08.
- January 1, 2004** - South Dakota Accident Records System (SDARS) was implemented.
- July 20, 2007** - Highway Patrol begins testing TraCS (Traffic and Criminal Software) in nine vehicles. Full implementation of computerized in-vehicle accident reporting expected in early 2008.
- January 1, 2008** - SD Highway Patrol begins submission of all reportable crashes using TraCS (Traffic and Criminal Software) system. The Office of Accident Records will expand TraCS to add municipalities & counties for more efficient reporting during 2008



## **V. GLOSSARY OF TERMS**

### **Reportable Traffic Crash**

Motor vehicle traffic crash which involves death, injury or property damage to an apparent extent of one thousand dollars or more to any one person's property or accumulated property damage of two thousand dollars per crash.

### **Fatal Crash**

Motor vehicle traffic crash in which at least one person dies as the result of the crash and dies within 30 days of the date of the crash.

### **Injury Crash**

Motor vehicle crash in which at least one person was injured and no one was killed.

### **Property Damage Only (PDO) Crash**

Motor vehicle crashes in which no one was killed or injured but there was property damage to an apparent extent of one thousand dollars or more to any one person's property or accumulated property damage of two thousand dollars per crash.

### **Fatality Rate**

Number of traffic fatalities per 100 million vehicle miles traveled.

### **Alcohol Involved Crash**

At least one driver, pedestrian, or bicycle driver had been drinking in the opinion of the investigating officer.

### **Economic Loss**

The calculable costs of motor vehicle crashes are wage loss, medical expense, insurance administration cost, and property damage. (Source: Estimating the Costs of Unintentional Injuries, 2008, National Safety Council)

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